

THE WORLD'S FIRST AIR CARGO MAGAZINE—NOW IN ITS 19th YEAR

AIR TRANSPORTATION

JULY • 1961

The Air Magazine for The Modern Shipper

Vol. 39 No. 1

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What Has Happened to the
Domestic Growth Curve?

How to Do Business
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AT Spotlight

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ATTENTION EXPORTERS: Tear out this page and send it, as a service, to your overseas customer



How **Golden Jets** **help Emery** **maintain its** **"Blue Ribbon** **Service"**

Emery Air Freight's "Blue Ribbon Service" is a top-quality airfreight service whose speed and reliability are used by more than 20,000 shippers each month.

To carry its airfreight, Emery selects the finest jet service wherever offered. In the West, Emery reserves space on many of Continental Airlines' Golden Jet flights.

The Golden Jets' outstanding record of *on-time* arrivals is one important reason for Emery's choice.

Another is that Continental ordinarily accepts cargo for the Golden Jets up to 45 minutes before departure time. And space may be reserved in *specific* flights—at no extra charge.

NEW GOLDEN JET ROUTE

New Golden Jet cargo service has just been inaugurated between Houston, San Antonio, El Paso, Phoenix, and Los Angeles. *Six* Golden Jets daily between Los Angeles and Houston!

Golden Jet 707's offer fast, frequent service also between Chicago, Kansas City, Denver, and Los Angeles. *Twelve* jets daily between Chicago and Los Angeles!

Have you some puzzling problems...specific questions about airfreight service? We'd be glad to talk with you and try to solve them. Just call your local Continental Cargo Manager or write to Mr. Lee Slay, Director, Cargo Sales, Continental Airlines, Stapleton Field, Denver 7, Colorado.



CONTINENTAL AIRLINES

MOST EXPERIENCED JETLINE IN THE WEST



515 feet long, this cargo terminal office building at Zurich connects with warehouse, storage and cargo-handling building to the rear.



Daily DC-8 service and all-cargo flights from New York take advantage of the jet age's fastest, most efficient transshipment handling.



Large door, all-cargo aircraft fly to Zurich, too! A key cargo hub, Zurich is served by 27 airlines flying to all parts of the world.



Terminal's facilities range from free trade zone areas to refrigerator rooms, from guarded vaults to high speed conveyors.

Zurich's new all-cargo terminal: 120,000 square feet of facilities designed from the ground up for cargo. Here, transshipping takes minutes, not hours.

Zurich, in the heart of Europe, served by 27 airlines, took a giant step into the jet cargo age late last year with the opening of its new two-building cargo terminal. Key cargo gateway to Southern Europe, Mid-East and Orient, Zurich now offers you the world's most complete, most advanced cargo facilities.

Here you'll find high-speed conveyor systems to rush documents along... cold storage rooms offering a variety of temperatures... animal hostels... 9,000 square feet of free trade zone facilities... radiation storage rooms... guarded vaults. And here, to save valuable time, all forwarders, agents and airline offices are located under one roof, within easy reach of one another.

From New York, daily Swissair DC-8 flights plus all-cargo services connect with Swissair Caravelles and other aircraft flying to 55 cities on five continents. In addition, a full schedule of connecting flights is offered by 26 other airlines flying from Zurich to every part of the world. Swissair will shortly add Convair "Coronado 990" jets to the Near and Far East. Take advantage of Zurich's unique facilities on your next shipment to Switzerland, Southern or Eastern Europe, the Mid-East, Orient or Africa. Just call your cargo agent or any Swissair office.

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From The Readers

On Page 12 of your May issue you have printed a list of trade fairs to be held in Great Britain this year. I think this is a good idea. How about similar lists for other countries?

Lester Gavelson
Los Angeles, Calif.

(From time to time we publish directories of trade fairs held throughout the world.—Editor.)

... Enjoy your publication.
Quinn & Boden Co., Inc.
F. G. Smith
Shipping Superintendent
Rahway, N. J.

Have been keeping abreast of our industry through your fine coverage.

Albert H. Newman
Vice President
Pacific Air Freight, Inc.
Jamaica, N. Y.

I enjoy reading your fine publication. Much valuable information.

L. V. Gudiswitz
Traffic Manager
Graham Paper Co.
St. Louis, Mo.

This magazine is highly informative and very educational.

Barnard A. Murray, Jr.
Traffic Manager
Charles Mundt & Sons
Jersey City, N. J.

I consider your magazine the best on the subject.

Joseph Joy
Ortho Pharmaceutical Corp.
Traffic Manager
Raritan, N. J.

I enjoy this magazine very much.
Ralph E. Taylor
Traffic Manager
Kennard Division
American Air Filter Co., Inc.
St. Louis, Mo.

We enjoy reading your magazine.
F. M. Butler
Traffic Manager
Cambridge Rubber Co.
Taneytown, Md.

Your magazine is most informative.
Andrew B. Schmitt
Buyer
George L. Nankervis Co.
Detroit, Mich.

... Very helpful and good reading.
Frank Thomas
Warehouse Manager
Oxford University Press
Fair Lawn, N. J.

... It has been very informative.
O. D. Burt
Traffic Manager
Parke, Davis & Co.
Detroit, Mich.

The article by Mr. Sturgeon in your May issue was the best of its kind. I think you will receive many good comments on it from your readers.

Larry Sichel
Chicago, Ill.

(The article referred to by Mr. Sichel is The True Profession of Traffic Management, by Charles H. Sturgeon, general traffic manager of the B. F. Goodrich Company.—Editor.)

Your magazine is very informative.

L. R. Williamson
Traffic Control Mgr.
American Machine & Foundry Co.
Brooklyn, N. Y.

... Enjoy your magazine.

R. G. Chew
Traffic Manager
Simpson Lee Paper Co.
Vicksburg, Mich.

Excellent magazine. I get a lot out of reading it.

Walter G. Ballou
General Traffic Manager
Draper Corp.
Hopedale, Mass.

Enjoy reading your magazine. Very informative.

John V. Rigney
Traffic Manager
Sandoz Pharmaceuticals
Hanover, N. J.

... Very good magazine.

George J. Hellerman
Traffic Manager
Raybestos-Manhattan, Inc.
Passaic, N. J.

Your magazine helps us to keep up to date on developments in the air transportation system.

Alvin Paull
Traffic Manager
Rapids-Standard Co., Inc.
Grand Rapids, Mich.

Fine publication with particularly interesting features.

R. A. Young
Traffic Manager
Worthington Corp.
Standard Pump Div.
East Orange, N. J.

We find your magazine very interesting, informative and helpful.

Arthur Edelberg
General Traffic Manager
Paper Novelty Mfg. Co.
Stamford, Conn.

... We are enjoying your Air Transportation which very often contains very interesting and helpful news.

E. J. Hajny
Manager
Koh-I-Noor, Inc.
Bloomsbury, N. J.

... Enjoy reading your magazine.

N. Robertson
General Traffic Manager
The Babcock & Wilcox Co.
Barberton, Ohio

... Your magazine is well-read.

Alvin Hill
Traffic Manager
McGregor-Doniger, Inc.
Dover, N. J.



By DAVID A. EDWARDS
United Kingdom Correspondent

"THE development of scheduled road-air services is the most important factor affecting European distribution networks today." So said Malcolm T. Black, director of traffic operations of M.S.P. (Engineering) Company.

"I feel that road-air is the biggest thing since the invention of the wheel," continued Mr. Black at a recent Rotary meeting. "I can honestly say that it has solved many of my company's worst distribution problems and proved the most economical and efficient means of transportation. I envisage within the next few years the development of a comprehensive continent-wide road-air network on a par with the present road-rail and rail-sea outlets."

"However, there is still a lot of thinking to be done in this direction, especially with regard to rates. I feel that the present commodity rate structure enforced by so many operators should be abandoned in favour of a structure governed by weight and volume."

"European operators could learn a lot by studying the methods of their opposite numbers on the other side of the Atlantic, and this also applies to forwarders and freight agents."

"Why do we use air transportation, as compared with surface transportation? Well, we naturally appreciate the time-saving element, but the main factor is that we benefit economically in the long run. Misconception as to the economy of air transportation is, I believe, doing more to delay an appreciable growth in air service on this Continent, than any other contributory cause."

"I suggest that any traffic manager who continues to believe the fallacy that it's cheaper by sea should send a couple of sample consignments by air. If they all did this, I am positive that there would be an awful lot of converts to air freight."

Both of Britain's national airlines—British European Airways and the British Overseas Airways Corporation—are going all out to improve their freight services and provide a more economical and efficient service.

BOAC who are offering a record total of more than 600,000 pounds of cargo capacity will be offered each week on its jet and propjet flights between London, Manchester and Glasgow and eight-major cities in the United States, have opened a new export cargo warehouse at London Airport to help cope with the increased cargo traffic of BOAC and its associated airlines. The new premises will be used entirely for the reception and handling of export cargo.

The move also makes space available for import cargo in the previous warehouse at London Airport North, which is to be specially modified for the purpose.

A BOAC spokesman said that the air (Concluded on Page 45)

AIR TRANSPORTATION

The World's First Air Cargo Magazine

Established October, 1942



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of Circulation

AIR TRANSPORTATION, published once each month, thoroughly covers the entire air cargo industry for the benefit of all those engaged in shipping and handling domestic and international air freight, air express and air parcel post. Included in **AIR TRANSPORTATION'S** wide coverage are: air shipping, cargoplane development rates, packaging, materials handling, documentation, air cargo terminal development, insurance, routing, interline procedures, new equipment, commercial airlines, military air transport service, air freight forwarding.

Subscription rate for United States and Territories, \$5.00 for one year, \$8.00 for two years, and \$11.00 for three years; foreign countries, \$6.00 for one year, \$10.00 for two years, and \$14.00 for three years. Individual copies (except November), 50 cents each; November issue, \$1.50 per copy.

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- Mechanized pallet unit loading. Loading and unloading time reduced more than 50%.
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- Expedited document service—papers processed minutes after aircraft arrival.
- Advance cargo bookings for multiple daily departures. Seaboard World is the only airline with daily all-cargo flights between New York and Europe.

- Expanded terminal facilities. Operated exclusively by Seaboard World Airlines, they keep your shipment on the move.
- Fast, direct connections at United States and European gateways.
- More all-cargo flights between the U. S. and Western Europe than any other airline.

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QANTAS Australia's Round-the-World Jet Airline

Phila. Seeks New York's Atlantic Airline Traffic

In the "national interest" and the "urgent necessity of providing relief for the congestion which exists and is growing in the 'bird-cage' air traffic pattern over New York," Andrew B. Young, chairman of the board of directors of the Chamber of Commerce of Greater Philadelphia, has proposed to a Senate committee that all transatlantic air traffic to New York be shifted to Philadelphia.

"Philadelphia business interests stand ready and desirous of taking all steps necessary to handle all of the business which may be moved to Philadelphia from New York," Young told the Committee on Interstate and Foreign Commerce.

He said that "the Eastern Seaboard terminus of international flights is not inevitably located at New York as a service necessary to the metropolitan area." Young stated that New York is "merely the transfer point, arbitrarily selected, for the majority of international travelers," and added: "This transfer can be removed."

Annual MATS Contracts Go Beyond \$76 Million

Contracts totaling \$76,631,875.64, for the transportation of military passengers and cargo during the fiscal year beginning July 1, have been awarded to 14 airlines by the Military Air Transport Service. Approximately two-thirds of the contract awards are for the movement of both passengers and cargo; the balance, for the airlift of cargo only.

The airlines and the total amounts of the awards are:

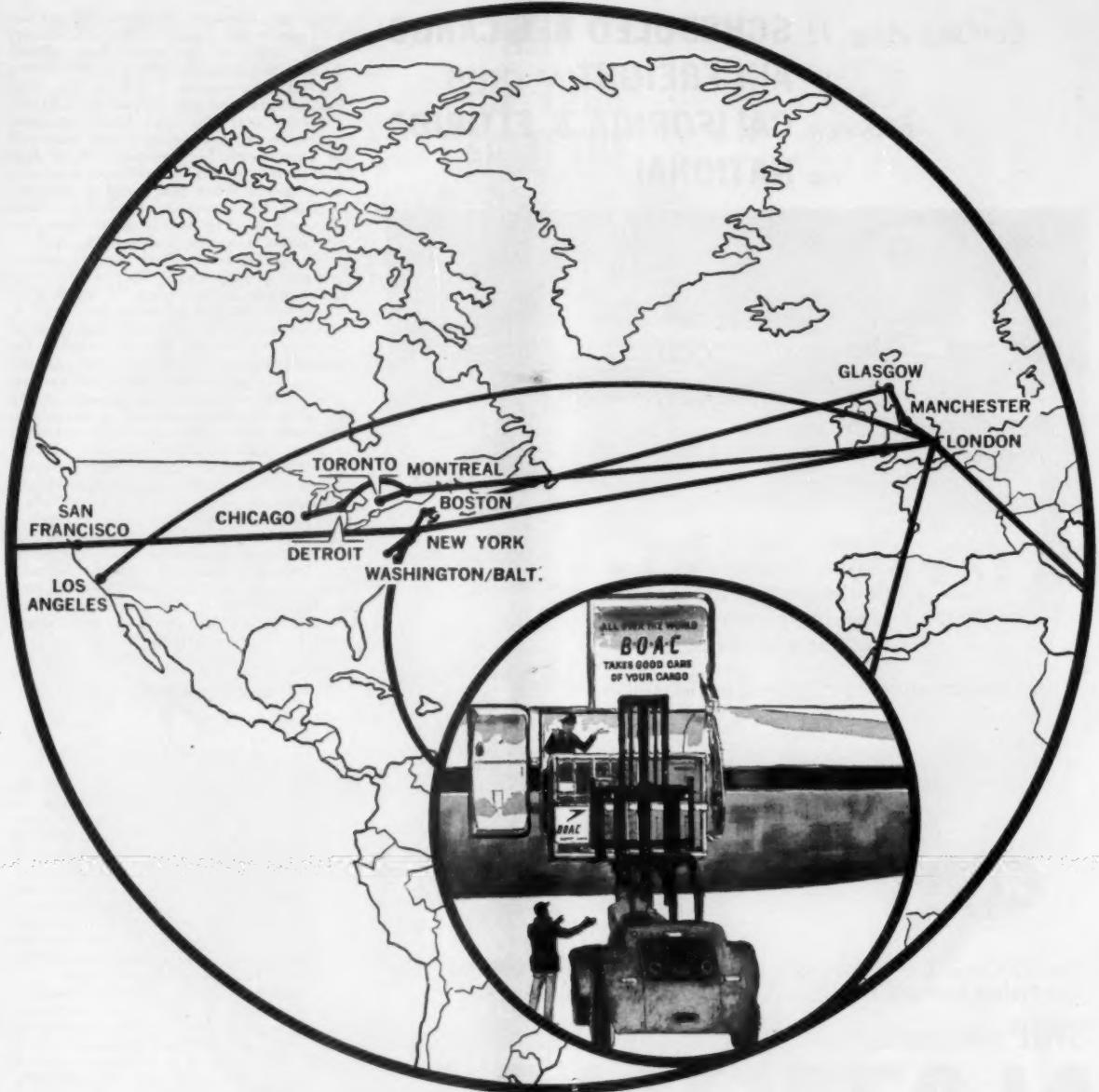
Pan Am:	\$15,926,194.88.
Flying Tiger:	\$10,170,064.78.
Slick:	\$8,878,964.29.
Aaxico:	\$7,786,764.
Riddle:	\$6,991,978.87.
Seaboard:	\$6,135,777.66.
Alaska:	\$3,430,051.34.
Overseas National:	\$3,052,986.48.
Capitol:	\$2,562,869.31.
Southern:	\$2,338,362.
Zantop:	\$1,564,584.91.
Trans International:	\$1,440,831.60.
Northwest:	\$1,380,981.72.

Cartage Parley is Off

What would have been the seventh annual Air Freight Cartage Conference, scheduled to be held in Chicago July 25-27, has been called off, Air Cargo, Inc., sponsoring organization, reported. The surprising announcement was occasioned by "conflicts with vacation plans," it was said.

MTMA Gets Military Traffic Rate Tenders

Under new procedures, the Military Traffic Management Agency in the nation's capital is receiving direct all new rate tenders, amendments, or supplements to rate tenders. Until June 15, such filings were made to military installations, both in the United States and overseas.



150 cargo flights per week to and from Europe

Anything bound to and from the U.K. to any one of the points mapped above is more rapidly handled, more readily shipped via BOAC and its associates. BOAC "Large Door" DC-7F freighters and 707 jets combine to give you the greatest cargo capacity and frequency from North America to London, Glasgow and Manchester.

Your Freight Forwarder or BOAC Cargo Agent is the man to call to get your cargo moving.

ALL OVER THE WORLD

B·O·A·C

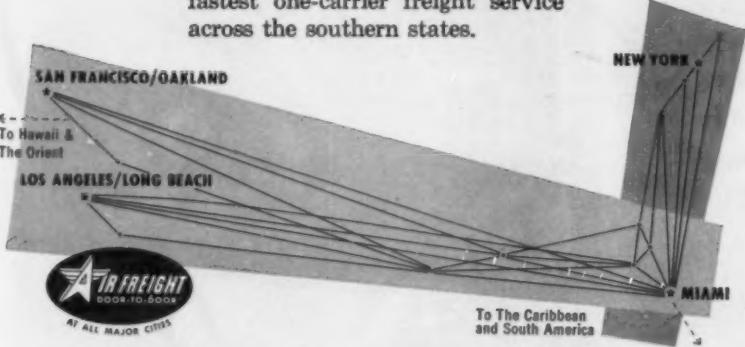
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Also, All-Cargo Freight service between **NEW YORK** and **FLORIDA**. Call your Freight Forwarder, Cargo Agent or nearest National office, and

SHIP

NATIONAL

Europe Freight Volume Rose 17.9% Last Year

The dozen European air carrier members of the Air Research Bureau in Brussels reported satisfactory freight results in intra-European operations last year. A total of 137,743 long tons of shipments was hauled, an increase of 17.9% over the results for 1959. Freight ton-miles rose 14.9% to 81,945.

ARB members are: Aer Lingus, Air France, Alitalia, British European Airways, Deutsche Lufthansa, Finnair, Iberia, Icelandair, KLM, Sabena, Scandinavian Airline System, and Swissair.

5,000 Planes Made Up World Fleet Last Year

The fleets of the world's scheduled air-lines in 1960 added up to a total of 5,014 jet, propjet, and turbine-engined aircraft, the International Civil Aviation Organization reported. The number of pure jets trebled during the year.

ICAO said that the world's air transport fleet was made up of 388 jets, 723 propjets, and 3,903 piston-engined planes, 2,282 of which were two-motored. The DC-3 still remains the most populous transport in the air, with 1,296 in operation in 1960.

Although jets formed only 7.7% of the

fleet, they accounted for about 30% of the total productive capacity. Propjets, numerically 14.4% of the world fleet, offered 20% of the capacity. The propeller-driven aircraft, representing 77.9% of the total number, provided only half of the capacity.

Stating that "the most likely successor to the 'second generation' of jets may well be a supersonic air transport," ICAO said it expected the jets themselves to approach sonic speed. When that speed is attained, it added, "there comes a speed range where the ratio of drag to lift is so high that operations would be highly inefficient."

"It is therefore likely that supersonic transports, when and if built, will have to have speeds in the range of Mach 2 or Mach 3 (1,500 to 2,500 miles per hour)" it was reported. "By 1959, the feasibility of building supersonic aircraft suitable for transport use was widely recognized, and the contracting states asked the ICAO Council to have a preliminary study made of the prospects of introducing such an aircraft into service before 1975 and of the technical, economic and social consequences of its development. This preliminary study was published in August 1960, with an introductory statement by the Council drawing attention to some of the more important points in the study, emphasizing the need for international coordination on various fields, and inviting contracting states to send their comments as a basis for further action by ICAO. Some of the study's main conclusions, necessarily tentative at this stage, may be summarized as follows:



"1. A Mach 2 airliner using conventional light alloy materials probably could be produced and ready for commercial operation in about seven years from 1960, or a Mach 3 airliner using stainless steel or titanium alloys in about ten years. However, since it is improbable that the necessary ground facilities for air navigation could be made available before 1970, this would appear to be the earliest feasible date for the introduction into service of supersonic transports, whichever type is chosen.

"2. The first type of supersonic transport will be an airplane propelled by air-breathing jet engines with a cruising speed probably in the area of Mach 3, possibly Mach 2. Assuming that it is a Mach 3 type, it is expected that it will have an operational range of about 3,500 nautical miles, a cruising altitude of 15,200 to 24,400 metres (50,000 to 80,000 feet), a probable maximum takeoff weight of the order of 160,000 kg. (350,000 pounds), and a passenger capacity of approximately 100. The purchase price of such an aircraft, assuming that it has to cover only a small part of the initial development cost, will probably be in the region of \$15 million, or about two-thirds of this for a Mach 2 type.

"3. Supersonic transports, if they are to be placed in airline service, will have to be designed in such a way that their level of safety will be equal to that of current commercial aircraft; that they will be able to fit into the existing pattern of operations both technically and economically; that the aerodromes used by the big supersonic transports will not require lengthening or strengthening; and that the effects of the sonic boom and noise do not exceed a level acceptable to the public."

ICAO pointed out that the United States is at the present time engaged in the development of the B-70 supersonic bomber.

(Concluded on Page 50)

WHY
SHIP YOUR
CARGO THE
LONG WAY ROUND
ACROSS THE ATLANTIC
AND OVER THE
POLE WHEN



JAPAN
AIR LINES
FLIES DIRECT
TO THE
ORIENT

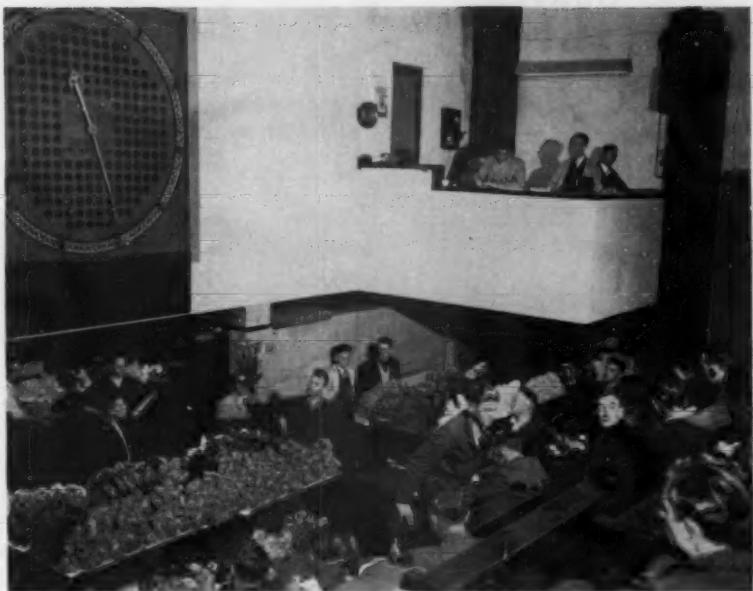
■ The shortest and fastest way to ship air cargo to the Orient is along the direct route Japan Air Lines flies—straight from the U.S. across the Pacific to Japan. From Chicago and New York or anywhere in the eastern U.S., it's faster to forward freight westward—and when time means money, it's cheaper, too.

■ JAL's new cargo schedule from San Francisco dovetails with major incoming cargo flights from the East. There's ample time to transfer your freight, yet no delay in shipping it on across the Pacific. And JAL's DC-7Fs, as you know, take the bulkiest or the most fragile cargo with equal consideration.

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Scene at the famous flower auction at Aalsmeer, Holland. Auction attendant holds up sample of blooms on sale. Buyers in banks of seats register their bids by pressing a button which controls hand of clock on wall. It will stop on price desired to pay.

THE needle on the auction clock moves back. A light flashes. A sale has been made. The sale recorded, more bunches of flowers are taken from the trolley and held up for inspection. The auctioneer speaks rapidly. Again the needle on the electric clock moves back. Again a light flashes. . . .

"Don't press that button," Jan Ekkerman warned, "or you may find you've bought a few hundred tulips!"

This was not quite my intention in visiting the famous flower auction at Aalsmeer, near Amsterdam. My as-

signment was to study the Dutch floricultural industry, which contributes 2% of the country's export earnings, and provides a livelihood for many thousands of Hollanders. And of which Aalsmeer is surely the heart and center.

To the uninitiated onlooker the scene in the busy auction room is confusing. Everything happens so fast. The system has been perfected to the point at which 400 to 450 sales are made per hour—which means split-minute if not split-second timing. It works this way:

The buyers, composed of exporters,

Four decades ago Dutch flower growers recognized the potentialities of air transportation. Since that time the Netherlands has become the world's center of the . . .

By VIOLA CASTANG

Assistant Editor

Air Transportation

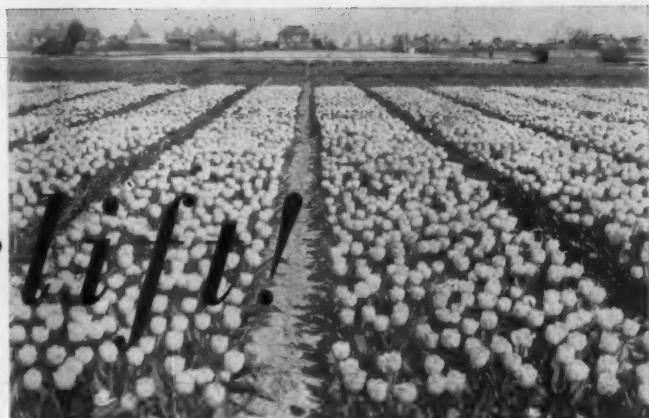


Flowers are delicate and extremely perishable, requiring special care in transport. Here an export consignment for a New York dealer is being carefully packed for overnight flight to Idlewild.



This scene presents itself at Schiphol Airport with almost humdrum regularity—the loading of tulip bulbs and varieties of cut flowers aboard one of KLM Royal Dutch Airlines' fleet of freight planes.

Flowerlift!



is prepared to pay, he pushes the electric button in front of his seat. This stops the moving hand, and brings a lighted number up on the clock's face. The number is that of the buyer's seat, and has already been recorded in the registry office.

The auctioneer notes down the price, the lot which has been sold, and the buyer's number. Next to him is seated a clerk, who records the same information on numbered buyers' vouchers, and adds the sum total. The job of the third man in the box is to calculate the total amount on the grower's list, and compare the amounts of the grower's list and the buyer's voucher.

In the registry office downstairs, all the data are computed at lightning speed, so that in literally a few minutes the buyer, having made payment, is enabled to take possession of the flowers he has just purchased.

Oddly enough, they may be his own flowers. For both of the flower auctions at Aalsmeer—the Coöperatieve Veilingvereniging Bloemenlust (the one I visited) and the Centrale Aamsmeersche Veiling — are cooperative ventures.



Holland's annual Flower Parades are world-famous and attract visitors from all parts of the world. Highlighting the height of the country's bulb season, fabulously designed floats, depicting all manner of scenes, consume literally hundreds of thousands of flowers.



Shown here are the wide expanses of greenhouses near Aalsmeer, center of Holland's floriculture industry. Last year, approximately 70% of the country's inbound and outbound shipments of cut

flowers were airlifted. The author reports that Sweden and Norway are the biggest year-round buyers. Biggest seasonal buyer is West Germany. Italy is a heavy buyer of hothouse-grown flowers.

Founded just 50 years ago on a basis of "Union is Strength," they represented the first step of the Land of Flowers in the direction of planned organization, particularly with regard to cut-flower trading.

The true Hollander being a self-reliant, down-to-earth individual, and the nature of anyone anywhere who works close to the land being rather more conservative than venturesome, the principle of cooperation did not at first light a beacon in every mind. However, the figures speak for themselves. The total transactions at the two auctions amounted in 1912 to 191,080 guilders; for the year 1960 the figure had ascended steeply to 51,399,000 guilders. No question, *Union is Strength* has caught on.

I have said that the growers may buy their own flowers. Mr. Barendsen, of Gebr. Barendsen, had already done that when W. C. Ten Hove, KLM's agricultural expert, introduced him to me in the main hall of the Bloemenlust auc-



tion. A tall, slender, pleasant man of middle-age with graying reddish hair and a ready smile, he inherited the firm from his father and uncle. An exporter as well as a grower, he raises half-a-dozen kinds of flowers, but requires up to 30 kinds for exporting.

Ranged round the main hall are the packing rooms, complete with packing tables and telephones. Some are rented to exporters and wholesale dealers, others are for general use. Gebr. Barendsen has its own packing room, and Mr. Barendsen took us to it in order to have the packing process demonstrated.

Two kinds of boxes are used—cardboard and plywood—with the accent heavily on cardboard. They come in different sizes. The heads of the blooms are placed at either end of the box, and a central wooden clamp secures the stems against movement. Different flowers require slightly different treatment; i.e., white roses are packed round with wood wool to prevent spotting, whereas greased paper protects the heads of carnations. I asked if there had been any significant advances in packing methods, but was told that none had been made for the good and sufficient reason that Dutch methods had always been so good that no advances were possible. I accepted this as being no self-glorying boast but a plain statement of fact.

(Continued on Page 33)

Dutch Flowerlift . . . In Reverse

IT'S an old saw that hauling flowers in bulk to Holland is like carrying coals to Newcastle, or monkeys to Singapore, or oil to Texas. You don't logically expect to see a fact in reverse—but this happens to be the case insofar as Florida gladioli are concerned. They are virtually pouring over the Atlantic, into the laps of Dutch flower importers.

Credit the original idea of the reverse flowerlift to Tully Carr, KLM's district cargo sales manager in Miami, with strong assists by Alvin E. Levenson, United States cargo manager, and A. J. Rickard, United States cargo traffic and interline manager. It was Carr who also was responsible for originating traffic of United States nursery stock to Europe.

Carr, whose sales territory includes the bountiful flower fields of Florida, became infected with the notion that these products of the soil could well be sold on a regular and continuing basis overseas when it was off-season there. There was no question that some kind of a market existed there, *if* —. The big *If* was price, quality, and the size of the potential abroad. In short, if the product was acceptable abroad, was there an adequate market for it?

Carr discussed his idea with a number of growers. Most interested was Norman Cox, head of Norman Cox & Company, a major grower of gladioli, with farms at Fort Myers. United States-grown flowers had been flown to Europe in the past, but never as *regular* traffic. Could it be made to happen? Cox indicated he would like more details.

The airline man decided to make a swing around part of Western Europe for the purpose of studying wholesale and retail flower markets there. He flew to Holland, Belgium, Switzerland, Germany, and Austria, revealing to merchants his thoughts about exporting Florida glads to the Continent, and picking their brains in turn. One of the key questions which needed answering was: what can the average consumer in each European



Flown north from Fort Myers, Florida, a shipment of "jet-fresh" gladioli is shown as it was loaded into a KLM jet at New York International Airport for flight to Amsterdam. A European market for Florida blooms is born.

country afford to pay for a bloom? Hinging on the answer to the latter was: how economically can it be transported by air from Fort Myers to Europe?

Carr returned with considerable information. He now knew that the wholesalers of Europe would be willing to pay from \$2.10 to \$2.60 per dozen glads, depending on their quality. This meant KLM had to obtain from the International Air Transport Association a common rate which would bring the glads within reach of the buyers overseas. There were other interesting items of information he gathered. For example, in Sweden it was customary to present a single flower, instead of a bouquet, as a token of appreciation. A glad, in this respect, was an impressive flower.

He returned to the United States, reported his information to Norman Cox, who then assigned Dirk van der Horst to investigate the project further. Van der Horst, a flower grower himself, also served as Cox's sales representative in the Midwest United States and in Europe. (Van der Horst, it turned out, was Rickard's former boss when both worked for the Holland America Line many years ago.)

(Concluded on Page 30)

MR. FREIGHT FORWARDER—

RIDDLE HAS THE WORLD'S LARGEST, FASTEST,
MOST MODERN AND EFFICIENT ALL CARGO FLEET.



What Has Happened to the Domestic Growth Curve?

By EMERY F. JOHNSON
President, Air Cargo, Inc.



AM not one to knock the future—nor to belittle any of the tangible progress which has been achieved by hard work during the past years, yet I find it rather easy today to become more than a bit shocked by the amount of "slippage" which has, apparently, crept into our rate of growth and development over these intervening years. What have been the reasons for this slippage? What has happened to the course of our air cargo development? These are the questions which prompt this article.

There are, of course, a host of factors which have been involved, each of which has had its particular effect upon air cargo's past rate of growth. These factors range from such body-blows as the enforced withdrawal of most cargo aircraft to help fight our "police" action in Korea up to the existing pleasant situation in which we find large numbers of well-depreciated piston-engine aircraft which are readily available for conversion to cargo use.

Each such factor has made its impact, and the ultimate result of their mix is not too bad for one who may be inclined to a charitable view of what has transpired commercially within the United States domestic scene. Looking through such end of a telescope, one finds that 16 years ago, during the tail end of a World War, the combined domestic airlines carried slightly more than 58 million ton-miles of mail and express—the total extent of their air cargo business at that time. Final figures for 1960 show almost 750 million ton-miles of mail, express—and now air freight—as having been carried in that calendar year, indicating a growth of almost 13 times during this particular period. By some relative standards,

"... All of our past air cargo effort leaves us today carrying but 5/100 of 1% of the total intercity ton-miles of all commercial traffic moving within the United States."

this may be viewed as a respectable performance.

What then—if anything—has been amiss with respect to the course of commercial air cargo development within the United States?

Have we been spoiled in the past? I think the record shows we have not. Have we been oversold by our own optimistic projections of the degree of air cargo development which was going to come about? Undoubtedly some amount of wishful thinking has been, and still is, present in what we have led ourselves and others to believe. But—and here is a telling question—have we seen, touched, and tasted a potential greater than has been achieved? I think we have.

Looking through this other end of the telescope, the answer must seem a clear "yes" to anyone who stops to dig out the rather surprising fact that all of our past air cargo effort leaves us today carrying but 5/100 of 1% of the total intercity ton-miles of all commercial traffic moving within the United States.

Everyone's forecasts said air cargo would do better than this. What, then,

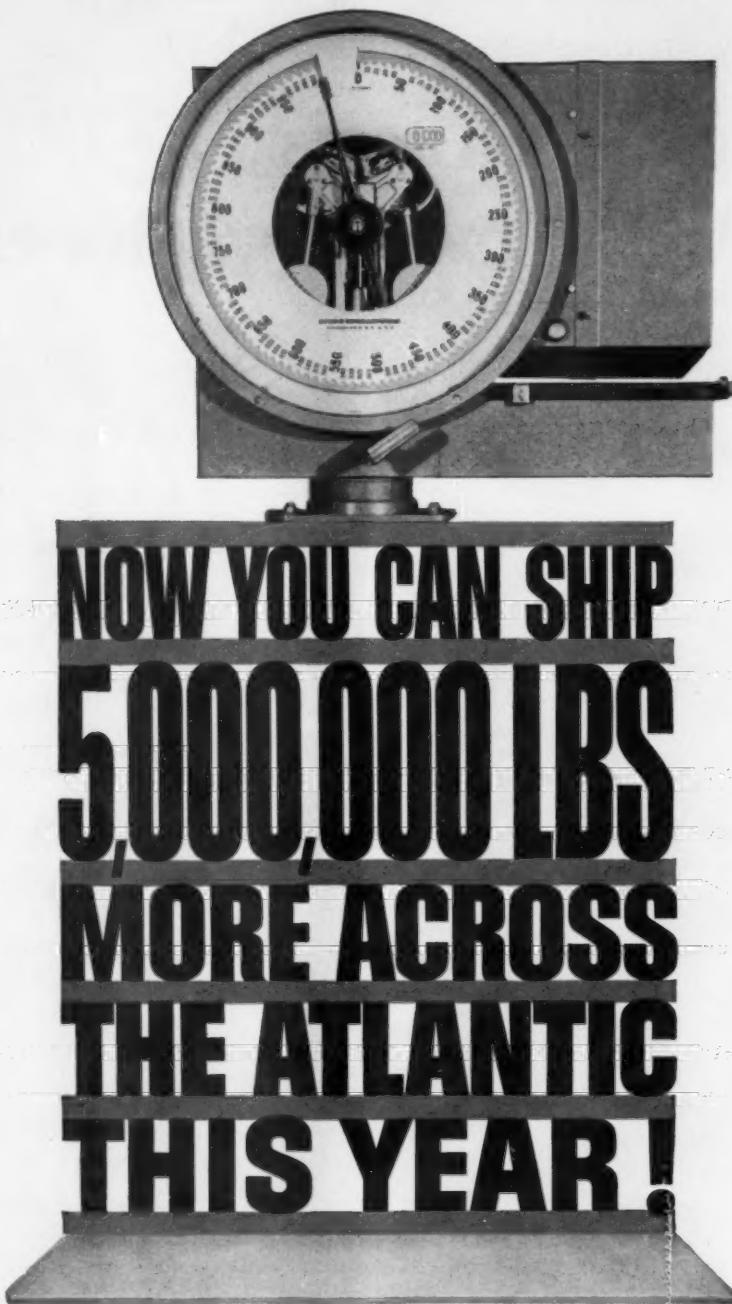
may have happened to retard the course of its expected development?

There are several quick responses to any such question, but, without exception, the one encountered from all quarters seems unanimous agreement that the primary lack of impetus to a greater development is the continued absence of the true cargo airplane we have so long awaited. That is a reason we are here today.

Fifty-seven years after the Wright brothers' first flight, 35 years after the beginnings of commercial air transportation, and 20 years after my own company was organized, we in aviation stand unique. In every other form of transportation, different kinds of vehicles have been developed for freight and passengers. Not so in ours. We are alone in this regard.

Sixteen years ago we were beefing up the floors of DC-3s and calling them "cargo" airplanes for commercial use. Later we did this with DC-4s. Today we have progressed to where we are doing precisely the same thing with DC-7s and 1649s which, save for two models currently manufactured under

(Continued on Page 39)



**NOW YOU CAN SHIP
5,000,000 LBS
MORE ACROSS
THE ATLANTIC
THIS YEAR!**

Now you can plan on sending all your air cargo—up to 5,000,000 extra lbs. in the remaining months of 1961 (that's 125,000 lbs. more per week)—on Air France's new cargo combination across the Atlantic. This extra cargo capacity comes from new ALL-CARGO flights which recently joined Air France's Jet Cargo Service to give you the best cargo combination ever between North

America and Europe, Africa, the Middle and Far East. Find out how this new cargo service can cut shipping costs and speed your consignments overseas by calling your cargo agent, your freight forwarder or your nearest Air France office (OLYmpia 6-5800 in New York City). And remember—Air France flies cargo to more cities in more countries than any other airline.

AIR FRANCE CARGO
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*Five major developments in modern distribution
which answer the questions of*

How to Do Business With Lower Inventories

THE most challenging aspect of materials distribution, like materials management, is the control of inventory. Often, we have too much. Many times we store it in the wrong places. In this article, I will discuss a concept which may be new to some of you. It is that the amount of inventory necessary to support current business volume may be reduced by adopting some of today's new developments in distribution.

Physical distribution of materials is an intangible subject to many businessmen. One reason for this is that their primary attention is on other fields—production, engineering, research, finance. Unless associated with physical distribution itself, it is difficult to visualize what happens to a shipment after it leaves the shipping platform.

Yet, there are forces at work today in distribution which could produce the very tangible result of cutting inventories. If all manufacturers should adopt them, \$5 billion is a conservative estimate of the amount invested in inventories country wide which would be freed for reinvestment in productive facilities. In addition, the annual cost of carrying inventories, including interest,



insurance, taxes, obsolescence, and storage, would be reduced between \$750 million and \$1 billion. Every company can benefit proportionately.

In these days of rising costs and narrowing profit margins, all businessmen,

By GERRIT W. VAN SCHAICK

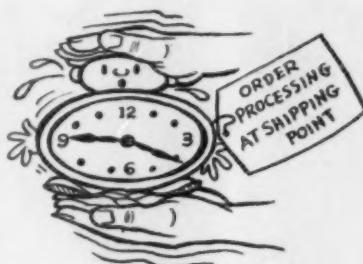
Assistant General Manager

Manufacturing Services Division

American Cyanamid Company



no matter what their fields, should be generally familiar with new developments in physical distribution. Future plans for new plants and warehouses, new products, even research expendi-



Before going further, let us agree on definitions of terms. According to Evert Welsh in his book, *Tested Scientific Inventory Control*, leadtime is "the time between the decision to place an order and the arrival of the goods in a place ready for use." I am going to concentrate on the three elements which make up the major part of total leadtime: the time required to transmit an order to the shipping point, order processing time at the shipping point, and transit time between the shipping point and the destination. Inventory, as I will use it, refers primarily to finished products in manufacturer's plant and field stocks, but includes raw materials and in-process inventory as well.



tures, should be made with some background knowledge of the subject.

I have selected from the many developments and proposals evident at every hand five which I consider basic. They are:

- Electronic data processing*
- Changes in telecommunications*
- Containerization*
- The Interstate Highway System*
- Shipment of cargo by air freight*

Each of these subjects is interesting in itself. For the purposes of this article, however, they have one characteristic in common—each helps to cut the leadtime between placing a purchase order and receipt of a shipment. A cut in leadtime makes possible a reduction in inventories.

Having defined leadtime and inventory, I will now show how new developments in five fields in distribution can cut leadtime and make it possible to work with lower inventories.

(Continued on Page 19)



MORE EXPERIENCE

KLM was first to fly cargo internationally 42 years ago—first with all-cargo service across the Atlantic in 1947.

LATEST EQUIPMENT

KLM DC-8 Jets fly at 600 mph—have increased cargo capacity. KLM DC-7F freighters are the finest all-cargo carriers ever built.

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ORLD-
VIDE
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Routes span
9 miles-link
s in 80 coun-
ts all continents.



TER CONVENIENCE

ices in major overseas busi-
neters are staffed with cargo
who know local conditions.

DAILY →
FLIGHTS Up to 4 flights every day
across the Atlantic. Frequent service
between all the world's prime markets.

ONE
CALL
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IT ALL



Cut red tape, cut paperwork.
One call and you'll have all the
answers.



Meet Al Levenson, KLM Cargo Sales Manager for the U. S. A. With 23 years in the business behind him, Al knows air cargo inside and out. He can handle any order of any size and ship it anywhere. You make one call — Al has the answers. And so do 150 cargo experts under his direction across the country. These men make their own decisions in the field — the right decisions about routes, markets, schedules. They stay on top of a shipping problem until it's solved. ■ It's a fact — KLM Cargo Representatives are the most experienced in their field. They in turn are backed by over 18,000 other KLM employees stationed throughout the world. Granted KLM flies everywhere and flies the finest. But it's skilled service that really counts. Skilled service by men who know their business best.



KLM—WORLD'S FIRST CHOICE FOR AIR CARGO

LOWER INVENTORIES

(Continued from Page 16)

1 Electronic computers contribute to a cut in leadtime by reducing order processing time. By order processing time, I mean the time between receipt of an order at a shipping point and pickup of the shipment by the carrier.

The computers which particularly interest me are those applied to distribution. These applications include sales forecasting, sales order processing, finished goods inventory control, and related applications such as production planning and raw materials and in-process inventory control. Computers committed to research for technical and scientific computing, to finance, and even to running plants are of great importance, in their own fields, but do not help cut leadtimes or inventories.

Computers are such a recent development that their use for any purpose is not yet widespread. How many computers are now in operation? About 4,000, renting for a minimum of \$1,000 per month. Of these, how many are leased by business? About one-third of the total are leased by Government and other non-business organizations, leaving 2,800 leased by business. How many computers are applied in distribution? If it is as many as 55%, only 1,350 are used for this purpose. We can readily see from these figures that a large number of companies operate without computers for any application.

Estimates of future growth of computer sales show that this condition will be rectified. The industry expects



the computer market to grow about 20% a year from an estimated \$365 million in 1959 to over \$1 billion in three to five years. The benefits to be derived by applying a substantial proportion of these in distribution can be illustrated by the experience of my own company.

Of the three computers that American Cyanamid Company uses in distribution, the IBM Ramac system installed in our Surgical Products Division at Danbury, Connecticut is the most complete. This system maintains inventories of 1,700 items at 43 locations, computes field stock replenishment quantities, forecasts sales, writes up orders and invoices, plans and schedules

production, and estimates material requirements.

Leadtime is cut in three ways by such a system. The first and most obvious way is that the speed of the computer completes the many steps necessary in processing an order in less time than a manual system. Next, by calculating the quantities necessary to replenish field stocks as they are being depleted, the computer eliminates stock orders from field warehouse locations. Lastly, the computer integrates sales forecasts and production plans to make finished products available in stock with minimum delay due to back orders.

While it is too early to assess the results of our Danbury installation, we hope that they will more than duplicate those of an IBM 650 installed at our Lederle Laboratories pharmaceutical plant in Pearl River, New York. This tape computer is used, among other applications, to plan distribution, control inventories, and plan production. After installation, inventories dropped 11% while sales increased 12%. Back orders, which at one time were a major problem, dropped 80%, reducing leadtimes substantially.

2 Changing technology in telecommunications is the second new development in materials distribution which cuts leadtime. Telecommunications is a term used to include communication by telephone, telegraph and, more recently, by microwave. Microwave communication is by high-frequency radio wave requiring towers for line of sight transmission. Leadtime is cut by the use of telecommunications by reducing the time required to transmit an order from the customer to the supplier.

The entire communications industry is growing rapidly today. As for volume of business, the number of telephones in use worldwide is expected to double in the next 10 years. Domestic long-distance volume increased 10% between 1959 and 1960 while international telephone business grew 20%.

Technology is changing as rapidly. Of particular interest to us in distribution are recent developments in transmission of messages in the form of data from one business machine to another. By data, I mean punched cards and tapes, either punched or magnetic. While almost all of the Bell System's communications load is still by voice, Frederick R. Kappel, president of AT&T, estimates that, by 1970, just one decade from now, one-half of the total volume of long-distance business will be in the form of data. This new development will make our present methods obsolete unless we adapt them to it.

A variety of equipment is available today for transmission of data by telecommunications. IBM has a low-cost system which transmits the data on punched cards by electrical impulses over ordinary telephone lines. Upon receipt, the impulses are converted back into punched cards for use as input to a computer. Other systems convert cards to paper tape and back to cards again via telegraph lines. Adaptation of such equipment to orders makes instantaneous order transmission possible.

Telecommunications has been used for many years for order transmission.



Orders have been telephoned to suppliers as long as telephones have been in use. Teletype is used extensively with the advantage of producing a written order.

Since the data on customers' orders ends up on punched cards for record purposes in most companies today, the sooner in the ordering process cards are created, the more manual order writing operations can be eliminated. This means preparation of the card by the customer. The route for an order with potentially the shortest transmission time is from the customer's office direct to the data processing center at the shipping point.

Transmission of orders on punched cards by telecommunications is applicable particularly to repetitive orders of standard products from distributors to manufacturers. It is worth considering by any business sending or receiving orders with great frequency, particularly when there is a computer installation at the shipping point.

3 Containerization is the third new development in distribution that contributes to a cut in leadtime by cutting transit time. It eliminates time-consuming rehandling of individual packages during loading, transit and unloading.

Considerable confusion exists over the exact meaning of containerization. To me, it is a general term used to describe packing several individual pieces of freight in a large freight container for shipment. It is best characterized by the van container which can be moved by truck on a demountable chassis, by rail on a flat car, or by steamship on deck or in a specially designed hold.

To be of greatest value to us as shippers, containers should be loaded, not at a truck dock, but at the end of the packing line within the plant. Unload-

ing should be as near the final point of storage or use as possible. Multiple handling of many packages is eliminated, saving time and reducing cost.

Containers can also be used as substitutes for warehouses, both at origin and destination. Time is saved by eliminating one separate handling entirely as well as saving the cost of a warehouse.

Containerization received great impetus as a result of revived interest in piggybacking in 1953 and by introduction in 1958 of Plan III (where the shipper owns or leases the container or trailer). Today, piggyback service under one or more Plans is offered by 55 railroads and accounts for 2% of total carloadings. Forward-looking railroads like the New York Central, the Rock Island, and the Milwaukee offer pure containerization through demountable van containers which can be shipped by truck and steamship as well as by rail.

Steamship lines have made more progress on containerization to date than other modes of transportation, with the Grace Line, the Bull Line, Matson Navigation Service, and Sea-Land Service among the most active. Although truck lines have been more cautious, some, such as Helms Express, operate tandem trailers with demountable chassis over the turnpikes. The airlines,



plagued with poor plane utilization caused by antiquated cargo ground handling, are buying all-cargo, tail-loading equipment such as Canadair's CL-44. This four-engined turboprop plane can take full advantage of containerization.*

There is great activity in containerization at present aimed toward overcoming two obstacles to eventual success—lack of standardization and complete ICC approval of piggybacking. The American Standards Association's MH 5 Committee has recommended standards for van, cargo, and pallet containers and is now obtaining their approval. While the ICC has approved some piggyback rates, it is still considering the great majority of proposals. The final outcome of its deliberations will not be known until its decisions are made public.

* Sole commercial airline purchasers to date are Seaboard World Airlines, Flying Tiger Line, and Slick Airways.

4 The Interstate Highway System, now about 25% complete, is the fourth development in materials distribution contributing to a cut in leadtime. Shorter leadtimes are possible by cuts in truck transit time up to as much as 50%.

The Interstate Highway System, technically known as National System of Interstate and Defense Highways, was created in 1956 by the Federal-Aid Highway Act. This act called for a 41,000-mile network of dual lane, limited access roads linking 48 states. Construction, which is to be spread over 13 to 16 years, is financed jointly by the Federal Government and the States on a 90-10% basis.

The turnpikes, with which we are all



familiar, were the forerunners of the Interstate Highway System. Most of them are now part of it. Completion of the New Jersey Turnpike in 1952 was closely followed by the east-west portion of the Pennsylvania Turnpike in 1954, the Ohio Turnpike in 1955, and Indiana's East-West Turnpike in 1956. Affording average speeds in excess of 50 miles per hour, the turnpikes made high-speed, interstate trucking a reality.

At present, about 10,000 of the Interstate System's 41,000 miles are in use, including 2,300 miles of the turnpikes. Forty-six hundred miles are under construction. All routes have been mapped generally many of them already showing up as proposed routes on road maps. Some, like controversial routes in Westchester County and 280 in New Jersey are being surveyed for specific location.

The future impact of the Interstate Highway System on trucking service can be appreciated by comparing its projected 41,000-mile length with the 3,200-mile total length of the turnpikes. To visualize it, imagine a 1,200% increase in the country's dual lane highway system reaching every state.

Completion of the Cross Westchester Parkway last December illustrates the effect the Interstate System has on truck transportation. This expressway, a part of the Interstate Highway System, links the New York Thruway at the Tappan Zee Bridge with the New England Thruway and the Connecticut Turnpike. Trucks using it will cut transit time between the bridge and New Haven, for example, from four to

two hours. This will not only speed deliveries, but will make possible round trips without driver layover to points as far away as Worcester, Massachusetts. The possibility of eventual rate reductions is inevitable.

5 Shipment of cargo by air freight is the last of five new developments in materials distribution which contribute to a cut in leadtime. It is obvious that air shipment does this by cutting transit time.

Air freight, to many people, is a means of transportation to be used only in an emergency. Comparison of point-to-point rates with surface transportation rates inhibits some from using it while imagined schedule unreliability inhibits others. But an increasing number of companies are finding air freight a means of distribution which not only cuts transit time, but cuts total distribution cost as well.

In the past, a world shortage of aircraft has led the scheduled air carrier industry to put available equipment to its most profitable use — passenger transportation. This policy has resulted in a tremendous growth in the industry since World War II. The type of aircraft operated has progressed from DC-3s and DC-4s to Boeing, Convair,



Douglas, and Lockheed jets. Revenue passenger-miles flown have increased from six billion in 1946 to 29 billion in 1959. Speeds have increased from 180 to over 600 miles per hour. By 1959, the airlines had captured almost 90% of the combined first-class railroad and airline passenger business.

In 1954, the airlines realized that they must develop their air cargo business more intensively if their rate of growth were to continue. Accordingly, a "total marketing concept" was developed to show prospective customers how to cut total distribution cost and increase profits by the use of air freight.

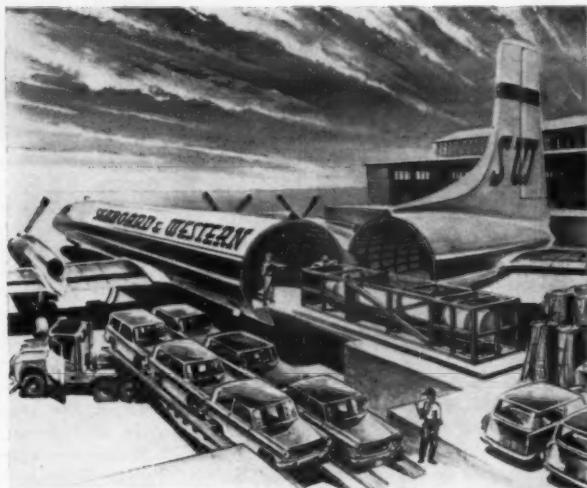
The first step in this sales approach is to make an analysis of present costs including, besides the cost of freight, inventory, warehousing, packing, handling, as well as taxes, insurance, rent on warehouses, salaries of warehouse personnel, and interest charges on money tied up in inventory. By eliminating much of the warehousing and related costs, shipment by air freight can be shown to save money in many cases.

While air cargo business has in-

(Continued on Page 36)



The CL-44s Are Here

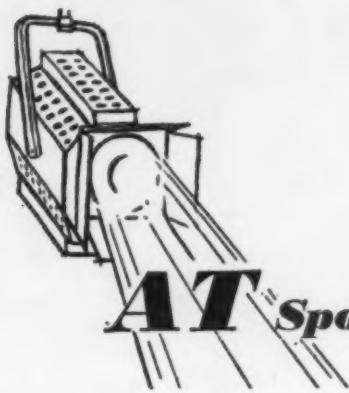


FROM THE DRAWING BOARD . . .

THE FLYING TIGER LINE and Seaboard World Airlines have taken delivery of the first aircraft in their respective CL-44 propjet freighter fleets. Tiger, which operates a transcontinental all-cargo route, has ordered 10 such swingtails at a cost of \$55 million; Seaboard, a North Atlantic all-cargo operator, has five on order, these costing \$25 million. Both airlines expect to receive the balance of their ordered fleets before the end of the year. The Canadair aircraft have a capacity of 65,000 pounds of freight each, and will make nonstop transcontinental or transatlantic crossings at an average speed of 400 miles per hour. Tiger and Seaboard will employ their new aircraft in commercial and military charter operations. Slick Airways, which has indicated that it intends returning to common-carriage operations this fall, has two CL-44s on order and has filed intention to purchase two more swingtails.



. . . TO THE REAL THING



Wendell R. Stevens

Manager of Cargo Development Pan American World Airways



HE thought he would be an engineer. He went as far as to get a college engineering degree. Then that great diverter—The Big Depression—came along, and Wendell Raymond Stevens found himself in commercial air transportation in which he has earned a reputation of no mean proportions. Most of all, the executives representing the scores of air carriers who have had occasion to debate rates, routes, regulations, and other matters with this conservatively attired man with the neatly trimmed mustache and resonant baritone voice, recognize him as a hard bargainer. One of his colleagues once referred to him as "charmingly tough."

Steve, as his intimates call him, is "in charge of dreaming" for Pan Am's world-wide cargo effort.

"My main job is to start things and follow through. This is anything that will develop cargo in the future, and assist immediate sales, plus the planning for much of our IATA cargo policy. I may talk about aircraft today, rates tomorrow, terminals the day after; I bird-dog the accounting department to get the kind of statistics we need. There are all kinds of ideas at Pan Am, and a good part of my job is to pull them together."

Years ago Pan Am went on record with the statement that ultimately the cargo side of its business would equal the passenger side. Even though passenger-oriented in his earlier years in air transportation, Stevens has evolved

as a sort of personification of this belief; an articulate member of that hard-thinking, hard-hitting group of company executives headed by Willis G. Lipscomb, vice president-traffic and sales.

Today, about one out of every eight dollars earned by Pan Am, the world's No. 1 commercial carrier of air cargo, is earned from the airlift of shipments. The breakthrough? It may be in full



swing by the middle of the present decade, when rates should reach the levels which Stevens believes will produce the great volumes required to achieve the smashthrough. He is confident that the industry soon will inaugurate aggressive steps to reduce ground-handling costs, and replace the current nebulous costing standards with true ones.

Now a resident of Pearl River, New York, Wendell R. Stevens was born 47 years ago in Rochester, New York, the son of Dr. and Mrs. Raymond B. Stevens. He has no early memory of Rochester, having been brought at the age of one year to Tecumseh, Nebraska, where his father was a minister. When

the boy was five the family moved from Johnson County, in which Tecumseh was located, northwest to the much larger town of Grand Island, in Hall County. There young Stevens spent the next seven years, while Dr. Stevens served as professor of theology at Grand Island College. At age 12, the youth accompanied his family to Conneaut, Ohio; a year later, to Milwaukee where the elder Stevens taught economics; and the year after that, back to his native state, in Elmira, where Dr. Stevens served as head of the department of sociology and economics of Elmira College until his retirement.

"Some of my limited religious training was obtained in Sunday School taught by my father. He had the knack of interweaving biblical history with theology, sociology, and economics."

Stevens majored in mechanical engineering at Bucknell University. After three years he switched to the Guggenheim School of Aeronautics at New York University, graduating in 1934 with a degree in mechanical engineering, with an aeronautical option.

Even in his senior year, which coincided with the first year of the Roosevelt Administration, he recognized that continued concentration on aeronautical engineering and design, on which he had settled for a career, would be in pretty low estate for some years to come. This was the era of breadlines, free soup kitchens, and corner vendors of apples.

It is possible that Stevens read and

took to heart the observation in *King Henry IV* that "the better part of valour is discretion." In any case, he exercised enough discretion in his final college year to turn to the study of commercial aeronautics, and to survey the airlines of the United States, ultimately deciding that it was American Airlines he most wanted to be with.

June 13, 1934 was a big day in Stevens' life. It was the day he received his college degree, celebrated his birthday, and was hired by American Airlines. His first "big boss" was Ralph Maughan, recently retired director-in-terline traffic for American.

Stevens started as a reservations clerk, doubling in brass as a typist. When he arrived at work on his first day, he was greeted by a pervading silence. The atmosphere of the office was pitched in gloom. He soon found out why: there had been a crackup of a plane.

"The office manager, Willard Reed, Jr., who was killed in the Dutch East Indies in the first burst of the Pacific war, gave me some wires to type. After two days of this, he decided I was no typist. He put me on the phones with the warning that I was not to handle anything more complicated than a single fare to Boston, and if it was any

other destination, to turn it over to somebody else. That was how I started at American."

With added experience, Stevens eventually moved to the ticket counter. Working the midnight-to-8 a.m. shift at Vanderbilt Avenue, hard by Grand Central Terminal, he was the only man on duty for the airline. At 2 a.m. he closed up the office "lock, stock and barrel," hung out a *Will Reopen in One Hour* sign, and went out for nearby nourishment.

Not long after Stevens' joining the air carrier, he decided to train his sights on sales. American's introduction of its Air Travel Plan, Stevens perceived, could be the open sesame if he worked it right. The Air Travel Plan involved the sale of travel coupons at discount rates. He poured all his energies into selling the bargain coupons, and in 1935 he won transfer to the Sales Department.

The following year, he was appointed sales representative in Cleveland. Late the same year, he was elevated to city sales manager in his native city, Rochester.

"I had part-time use of a stenographer, made out my own tickets and sold them, published my own local tariff, maintained liaison with the oper-

ations department, and wrote and placed my own news releases."

His first task on his arrival in Rochester was to write a news release about his appointment. He wrote a short piece, included some sketchy biographical information, and sent it off. One of the papers came out with an extensive story, playing up the full details of Stevens' background — information which he had never supplied in his release. Consumed with curiosity as to how this had happened, he called on the newspaper. He discovered the city editor was his uncle.

Although his stay in Rochester was only until the Spring of 1937, he carried to St. Louis—his next assignment—the memory of an invitation by Frank Gannett, the famous publisher, to ride in his private plane.

Jimmy Doolittle, then aviation manager for Shell Oil, opened American's new office in St. Louis to which Stevens had been transferred as district sales manager. Doolittle left a terrific impression on him.

In July 1940, American brought Stevens East again, to Newark, where he served in a similar position. Then, in 1941, the General Office, located at La Guardia Field at that time, beck-

(Continued on Page 37)

We watch air cargo like a hawk

Ship air cargo under the watchful eye of American Express. With a seasoned staff of freight experts and Telex-linked offices, we're always on the lookout for ways to save time and money every leg of the trip. Nothing's left to chance . . . or to you. We do it all . . . custom brokerage, foreign freight forwarding, documentation, insurance, consolidation. You ship with confidence when you ship with American Express . . . CAB Certified International Air Freight Forwarders to or from anywhere! It's the name in freight that carries the weight!

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THE P. D. FULWOOD COMPANY, of Tifton, Georgia, reputedly produces what are among the finest field-grown vegetable plants in the South. For more than half a century, Fulwood has been shipping its plants to all parts of the United States. Sixteen years ago, the firm became Delta Air Lines' first air freight ship-

per. The No. 1 shipment consisted of a full C-47 load of plants consigned to purchasers in a Northern city. It being wartime, it was necessary to receive War Department clearance to allow Delta to make the flight. Since then, Fulwood never has ceased being a Delta shipper. Over the years the firm has intensified its air traffic and ex-

panded this means of transportation to improve its distribution system. During the season, the Tifton grower airships from 50,000 to 60,000 pounds per month, reaching a season's total of approximately a quarter-million pounds. Here, step by step, *Air Transportation* brings you from Tifton to the person at the other end of the line—the consumer.

TOMATO PLANTS ARE



1. From this office in Tifton, Georgia . . .



2. P. D. Fulwood, Jr., president and general manager of the P. D. Fulwood Co., guides his huge plant-growing operation.



3. Young tomato plants are pulled . . .



4. And delivered to a facility where . . .



5. Plants are graded and sorted, then sent to be . . .



6. Bundled in peat moss and wrapped and . . .



7. Done up in separate bundles for . . .

AN
AIR
TRANSPORTATION
FOTOSTORY

NO STRANGERS TO DELTA



8. Packing in special lightweight containers.



9. Picked up by Georgia Highway Express . . .



10. Plants are loaded aboard Delta Air Lines plane in Atlanta . . .



11. And jetfreighted to a Chicago consignee who . . .

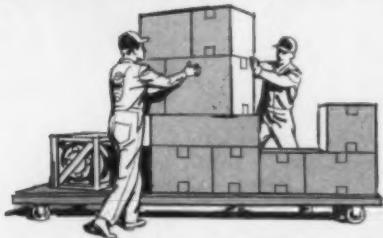


12. Loses no time in maturing them . . .



13. For the shopping-wise consumer.

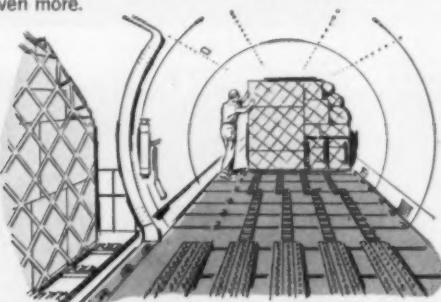
PAN AM ADDS **AirPak** CARGO HANDLING SYSTEM to THE WORLD-WIDE MARKETING SERVICE



1. Shipments are "unitized" on standard 88" x 108" pallets. These pallets are the same size as pallets specified by MATS (Military Air Transport Service) and are compatible with over-the-road transport facilities.

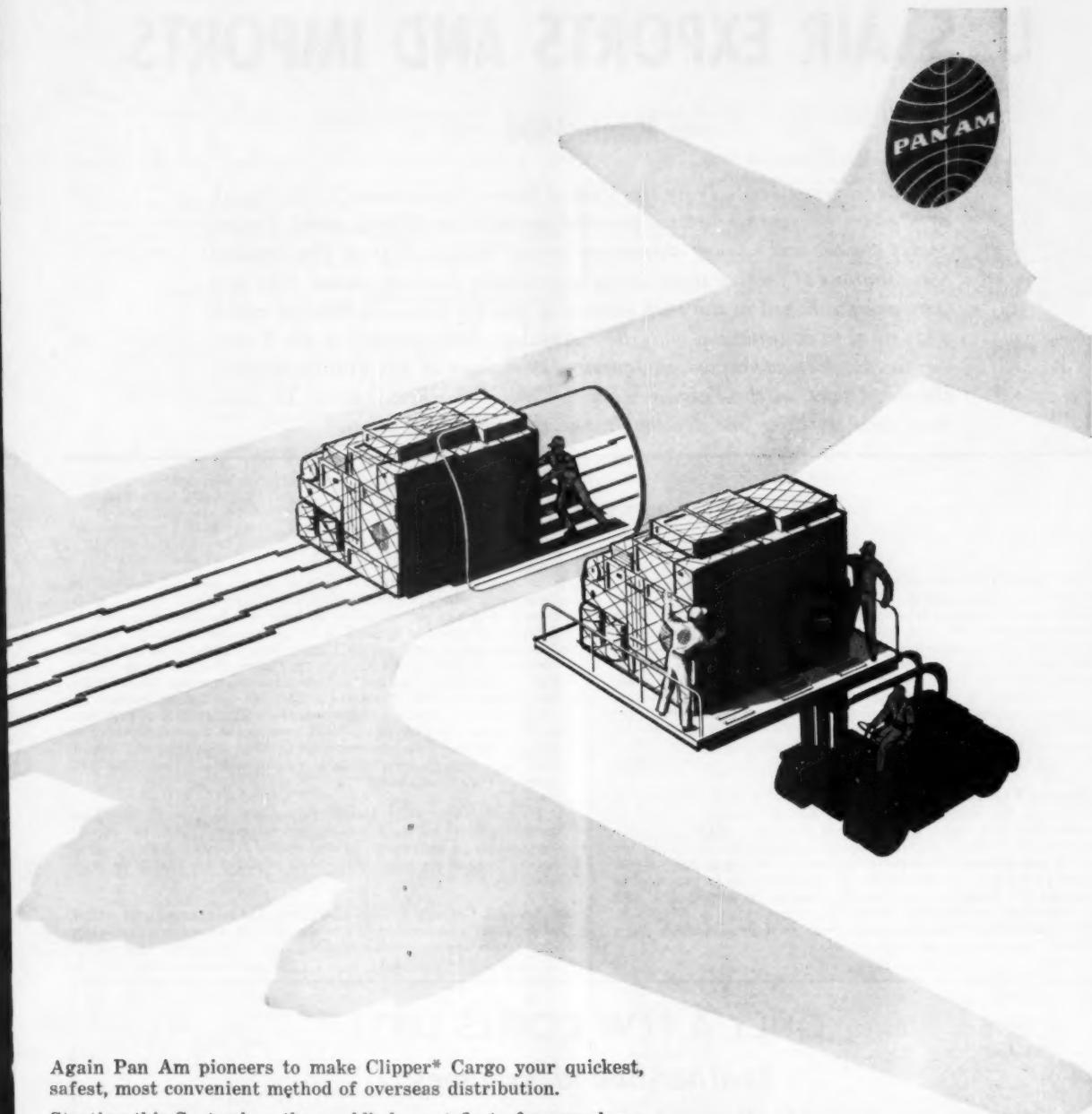


2. Each pallet can carry up to 6700 pounds of cargo, can be packed according to destination, to combine many items from the same manufacturer, or from various shippers, speeding handling even more.



3. Plane completely loaded in 45 minutes. Until now it took hours! And no winches, cables or complex mechanisms to jam up or break down. 2 men roll the load in fast. Load locks in position, and that's it!

Remarkable new palletizing system divides a whole planeload of cargo into just seven fast-loading, individually protected units. Means safer, surer, faster-than-ever deliveries—world-wide! Loading and unloading time is cut more than half.



Again Pan Am pioneers to make Clipper* Cargo your quickest, safest, most convenient method of overseas distribution.

Starting this September, the world's largest fleet of cargo planes equipped for mechanized loading will be at your service world-wide.

With startling cuts in ground time at both gateway and destination, your shipment will now get to consignees even faster than before. What's more, Pan Am's AIRPAK system means less handling, less chance of loss, a *more thoroughly efficient* system of shipping from the moment your shipment leaves the loading platform. And, of course, this system also allows for unusually shaped products.

This is just one more example of Pan Am's constant effort to help you do business abroad with greater ease, efficiency, economy. Why settle for less when, at no extra cost, you can get all these unique benefits of The Pan Am World-Wide Marketing Service — world's greatest source of Information, Transportation, Representation abroad.

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PAN AM PUTS YOU IN BUSINESS ABROAD — WITH ONE PHONE CALL



*Trade Mark, Reg. U. S. Pat. Off.

U. S. AIR EXPORTS AND IMPORTS

March, 1960

This commodity study by the United States Government is the fourth of a series presenting certain selected statistics on March, 1960, United States export and import shipments by air, extracted from the detailed compilations of foreign trade air cargo statistics for that month. The first part was published in the 14th edition of the Air Shippers Manual which was issued in conjunction with the November, 1960 number of Air Transportation; the second part, in January, 1961 issue of Air Transportation; the third part, in the February issue. This is the first time in 13 years that such statistics are available. See the following pages.

EXPLANATORY NOTES

Air Export Coverage—Export statistics include government as well as non-government shipments to foreign countries. The export statistics in this release, therefore, include Mutual Security Program military aid, and economic aid shipments. Shipments to United States armed forces and diplomatic missions abroad for their own use are excluded from the export statistics. United States trade with Puerto Rico and the United States possessions is not included in this release. Also excluded from this release is information on merchandise shipped in transit through the United States between foreign countries. The export data in this release are based on 100% coverage of shipments valued at \$100 or more and on a 50% sample of shipments valued at less than \$100.

Export Valuation: The valuation definition used in the export statistics is the value at the seaport, border point, or airport of exportation. It is based on the selling price (or cost if not sold) and includes inland freight, insurance, and other charges to the port of exportation. Transportation and other costs beyond the United States port of exportation are excluded. However, in some instances the valuation may not be reported in accordance with this definition, particularly where the export value is difficult to determine or must be estimated. None of the values has been adjusted for changes in price level.

Air Import Coverage—General import statistics include imports for immediate consumption plus entries into bonded warehouses. The import statistics include merchandise imported by government agencies as well as by private importers, but exclude American goods returned by United States armed forces for their own use. United States trade with Puerto Rico and the United States possessions are not included in this release. In addition, the release excludes merchandise shipped in transit through the United States between foreign countries. The general import data in this release are based on 100% coverage of imports reported on formal entries. The general import value for informal entries (\$250 and under) referred to in this release is based on a 50% sample of such shipments.

Import Valuation: Import values are, in general, based on market price or selling price, and are in general, f.o.b. the exporting country. The import values exclude United States import duties. None of the values have been adjusted for change in price level.

Special Category Commodities: Those commodities which, for security reasons, detailed commodity or commodity-by-country information cannot be released.

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Table 1.—UNITED STATES GENERAL IMPORTS BY AIR—SIZE OF SHIPMENT IN TERMS OF SHIPPING WEIGHT GROUPS,
BY SELECTED COMMODITY GROUPINGS—MARCH 1960

(Commodity groupings are shown where the air import value was \$200,000 and over, and/or the shipping weight was 20,000 pounds and over)

Size of shipments (shipping weight groups), commodity description and code number (first four digits of Schedule A* except as noted)	Value (dollars)	Shipping weight (pounds)	Number of shipments	Size of shipments (shipping weight groups), commodity description and code number (first four digits of Schedule A* except as noted)	Value (dollars)	Shipping weight (pounds)	Number of shipments
Total.....	41,945,452	8,536,698	22,709	500-599 pounds.....	1,109,953	156,197	290
Less than 50 pounds.....	11,028,900	194,910	12,236	600-699 pounds.....	1,065,071	137,827	216
Diamonds (5950-5952).....	450,508	48	15	Furs, undressed (0701-0729).....	272,984	3,199	5
Cultured pearls and parts (Schedule "A" No. 5953 900).....	1,409,131	4,465	286	Automobile parts (7902).....	44,402	21,081	33
Platinum (6820-6826).....	593,143	360	28	All other commodities.....	747,685	113,547	178
Electrical machinery and apparatus (7063-7100).....	287,426	8,272	414	700-799 pounds.....	690,950	96,609	131
Aircraft parts, except engines (Schedule "A" No. 7910 800).....	251,285	3,171	161	Electrical machinery and apparatus (7063-7100).....	209,141	14,554	20
Medicinal and pharmaceutical preparations (8103-8150).....	403,984	1,157	68	All other commodities.....	481,809	82,055	111
Watches and watch movements (9560).....	2,355,974	16,020	1,275	800-899 pounds.....	894,720	107,399	127
Watch parts (9570).....	367,542	8,984	907	Furs, undressed (0701-0729).....	309,209	4,182	5
Original paintings, sculptures, statuary and etchings (9620).....	870,795	3,089	156	All other commodities.....	585,511	103,217	122
U. S. articles returned (9910-9919).....	817,039	8,916	456	900-999 pounds.....	287,406	70,377	75
All other commodities.....	3,224,073	140,428	8,470	1,000-1,999 pounds.....	3,865,985	604,512	432
50-99 pounds.....	4,091,823	219,759	3,198	Furs, undressed (0701-0729).....	708,263	15,123	11
Furs, undressed (0701-0729).....	273,258	4,245	59	Animals, live (0840-0906).....	74,032	28,485	23
Cultured pearls and parts (Schedule "A" No. 5953 900).....	207,284	1,209	19	Vegetables, fresh (1191-1210).....	9,087	62,108	40
Electrical machinery and apparatus (7063-7100).....	214,496	14,975	213	Palm leaf and palm leaf fans, natural (Schedule "A" No. 2932 500).....	2,505	23,959	16
Watches and watch movements (9560).....	561,527	5,864	93	Wool fabrics, woven (3607-3615).....	272,484	69,884	49
Original paintings, sculptures, statuary and etchings (9620).....	369,026	2,187	32	Platinum (6820-6826).....	1,423,425	2,277	2
U. S. articles returned (9910-9919).....	212,581	10,036	152	Electrical machinery and apparatus (7063-7100).....	216,465	21,386	16
All other commodities.....	2,253,651	181,243	2,630	Automobile parts (7902).....	74,181	45,452	29
100-149 pounds.....	3,913,389	226,960	1,931	U. S. articles returned (9910-9919).....	119,316	32,632	24
Furs, undressed (0701-0729).....	373,848	7,089	60	All other commodities.....	966,227	303,206	222
Diamonds, industrial (5952).....	598,500	135	1	2,000-2,999 pounds.....	1,391,874	441,288	183
Electrical machinery and apparatus (7063-7100).....	208,360	13,345	112	Beef, fresh, chilled or frozen (0018).....	8,956	26,294	10
Watches and watch movements (9560).....	344,456	2,777	25	Furs, undressed (0701-0729).....	262,184	7,451	3
All other commodities.....	2,388,225	203,614	1,733	Vegetables, fresh (1191-1210).....	9,588	65,387	27
150-199 pounds.....	2,465,708	171,741	1,008	Palm leaf and palm leaf fans, natural (Schedule "A" No. 2932 500).....	2,421	26,407	10
Platinum (6820-6826).....	282,574	531	3	Wool fabrics, woven (3607-3615).....	159,782	41,347	17
All other commodities.....	2,183,134	171,210	1,005	Office, accounting and computing machines (7785, 7786).....	141,077	36,923	15
200-249 pounds.....	2,400,075	162,099	747	Automobile parts (7902).....	33,632	24,084	12
Furs, undressed (0701-0729).....	292,351	5,686	26	All other commodities.....	774,234	213,395	89
Original paintings, sculptures, statuary and etchings (9620).....	211,173	857	4	3,000-3,999 pounds.....	1,074,804	384,310	111
Antiques produced prior to 1830, except rugs and carpets made after 1700 (9640).....	403,900	445	2	Beef, fresh, chilled or frozen (0018).....	14,609	46,307	13
All other commodities.....	1,492,651	155,111	715	Animals, live (0840-0906).....	38,795	20,550	6
250-299 pounds.....	1,521,124	119,819	443	Vegetables, fresh (1191-1210).....	7,045	74,133	21
Furs, undressed (0701-0729).....	237,680	3,204	12	Palm leaf and palm leaf fans, natural (Schedule "A" No. 2932 500).....	2,491	27,429	8
Original paintings, sculptures, statuary and etchings (9620).....	296,458	1,061	4	Wool fabrics, woven (3607-3615).....	84,779	24,175	7
All other commodities.....	986,986	115,554	427	Antiques produced prior to 1830, except rugs and carpets made after 1700 (9640).....	600,330	3,500	1
300-399 pounds.....	1,973,416	198,159	584	U. S. articles returned (9910-9919).....	106,070	30,433	9
Furs, undressed (0701-0729).....	243,855	4,042	12	All other commodities.....	220,685	157,783	46
All other commodities.....	1,729,561	194,117	572				
400-499 pounds.....	1,271,352	148,345	338				
Watches and watch movements (9560).....	242,921	1,378	3				
All other commodities.....	1,028,431	146,967	335				

*Schedule A, Statistical Classification of Commodities Imported into the United States.

Table 1.—UNITED STATES GENERAL IMPORTS BY AIR—SIZE OF SHIPMENT IN TERMS OF SHIPPING WEIGHT GROUPS,
BY SELECTED COMMODITY GROUPINGS—MARCH 1960—Continued

(Commodity groupings are shown where the air import value was \$200,000 and over, and/or the shipping weight was 20,000 pounds and over)

Size of shipments (shipping weight groups), commodity description and code number (first four digits of Schedule A* except as noted)	Value (dollars)	Shipping weight (pounds)	Number of shipments	Size of shipments (shipping weight groups), commodity description and code number (first four digits of Schedule A* except as noted)	Value (dollars)	Shipping weight (pounds)	Number of shipments
4,000-4,999 pounds.....	434,990	332,516	74	8,000-8,999 pounds—Continued			
Beef, fresh, chilled or frozen (0018).....	20,216	69,218	15	Shrimps and prawns (Schedule "A" No. 0087 200).....	22,927	43,486	5
Lobsters, not canned (0083).....	20,325	24,679	5	Vegetables, fresh (1191-1210).....	3,945	33,978	4
Shrimps and prawns (Schedule "A" No. 0087 200).....	19,061	31,060	7	Plantains, green or ripe (1300).....	992	24,800	3
Vegetables, fresh (1191-1210).....	6,877	85,355	19	All other commodities.....	111,049	59,856	7
All other commodities.....	368,511	122,204	28				
5,000-5,999 pounds.....	281,826	485,116	88	9,000-9,999 pounds.....	81,478	224,706	24
Beef, fresh, chilled or frozen (0018).....	74,324	256,228	46	Beef, fresh, chilled or frozen (0018).....	39,682	130,871	14
Animals, live (0840-0906).....	49,134	27,095	5	Shrimps and prawns (Schedule "A" No. 0087 200).....	19,317	37,505	4
Vegetables, fresh (1191-1210).....	9,215	99,069	18	All other commodities.....	22,479	56,330	6
Plantains, green or ripe (1300).....	932	21,410	4				
All other commodities.....	148,221	81,314	15				
6,000-6,999 pounds.....	152,689	528,275	82	10,000 pounds and over.....	1,593,412	2,946,485	160
Beef, fresh, chilled, or frozen (0018).....	96,286	336,527	52	Beef, fresh, chilled or frozen (0018).....	157,468	485,470	38
Vegetables, fresh (1191-1210).....	9,129	96,018	15	Lobsters, not canned (0083).....	39,744	76,803	5
Newspapers and periodicals, unbound (Schedule "A" No. 9503 500).....	4,730	25,740	4	Shrimps and prawns (Schedule "A" No. 0087 200).....	264,586	459,944	26
All other commodities.....	42,544	69,990	11	Animals, live (0840-0906).....	41,911	23,893	2
7,000-7,999 pounds.....	131,952	262,629	35	Vegetables, fresh (1191-1210).....	35,148	737,590	46
Beef, fresh, chilled or frozen (0018).....	20,389	69,115	9	Coffee essences, substitutes and adulterants (Schedule "A" No. 1511 300).....	429,890	260,640	16
Vegetables, fresh (1191-1210).....	10,610	105,212	14	Whisky (1715).....	9,663	25,750	1
Plantains, green or ripe (1300).....	1,580	39,500	5	Cotton wearing apparel (3090-3114).....	48,817	25,758	1
All other commodities.....	99,373	52,802	7	Wool fabrics, woven (3607-3615).....	51,064	314,832	2
8,000-8,999 pounds.....	178,411	316,660	37	Automobile parts (7902).....	270,142	333,348	12
Beef, fresh, chilled, or frozen (0018).....	39,498	154,540	18	Organs, other than electric and pipe organs, and parts (Schedule "A" No. 9260 820).....	62,750	30,255	1
				All other commodities.....	182,229	172,202	10
				Shipping weight not available.....	44,144	...	159

*Schedule A, Statistical Classification of Commodities Imported into the United States.

IN REVERSE

(Continued from Page 12)

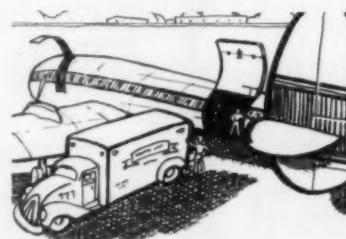
Both Carr and van der Horst traveled to Europe. Armed with lists of the most important flower importers and retailers in Europe, provided by the New York office of KLM, the pair made new calls, intensifying the study previously made by Carr alone.

Then Cox, who was to follow them to Europe on a holiday, decided to mix a little business with pleasure. He did a great deal of interviewing on his own hook, and even tested some of Carr's ideas.

The result of these trips, surveys, and observations was a decision to go ahead. KLM had managed to obtain the common rate it sought. The way was clear for the Big Test.

For this new operation, Cox designed a special flower container. Fully loaded, it weighed 54 pounds. Each container must be loaded into the plane upright.

The operation started during the second week of last December. A big load of glads was loaded into a National Airlines freighter at Page Field, Fort Myers, flown to New York International Airport where it was trans-



ferred to a KLM cargoplane, and hauled to Amsterdam overnight. From that point, the stately blooms moved without delay to their various European destinations.

From the start of the flowerlift to its first-season finale at the end of 15 weeks, the Dutch airline hauled Cox's perishable exports to the tune of about 10,000 pounds a week—this despite the horrible winter. So successful has the operation proved to be, it is anticipated that Cox will treble his volume in the 1961-62 season.

Florida glads have made their mark on the European market. It may have out-of-season competition from Israeli and Maltese growers, but the Florida product appears to have proven its superiority in quality while remaining competitive in price.

Now Cox has borrowed a leaf from the Green Stamps people and is introducing a similar plan of his own, in cooperation with KLM. A booklet in the shape of a passport provides space for 50 stamps. One stamp will be issued to the overseas purchaser of 200 kilos of glads. Two completely filled booklets will entitle the holder to one round-trip economy flight to New York. • • •

Table 2.—UNITED STATES EXPORTS BY AIR—SIZE OF SHIPMENT IN TERMS OF SHIPPING WEIGHT GROUPS, BY SELECTED COMMODITY GROUPINGS—MARCH 1960 (EXCLUDING "SPECIAL CATEGORY" COMMODITIES)

(Commodity groupings are shown where the air export value was \$200,000 and over, and/or the shipping weight was 20,000 pounds and over)*

Size of shipments (shipping weight groups), Schedule B** commodity description and code number	Value (dollars)	Shipping weight (pounds)	Number of shipments	Size of shipments (shipping weight groups), Schedule B** commodity description and code number	Value (dollars)	Shipping weight (pounds)	Number of shipments
Total.....	48,626,982	126,562,219	109,132	100-149 pounds—Continued			
Less than 50 pounds.....	13,178,346	1,039,625	74,363	Cut flowers and cut ferns or foliage (25991).....	23,892	30,418	256
Furs, undressed (07150-07298)....	209,651	2,573	101	Parts and accessories for tractors, except engines and attachments (78891, 78895).....	43,961	22,129	186
Furs, dressed or dyed (07440, 07460, 07498).....	295,369	2,188	120	Parts for commercial automobiles, trucks and busses (79151-79262).....	90,999	43,008	358
Cotton wearing apparel of woven fabrics, women's and children's, new (31220-31290).....	142,008	23,130	1,313	Medicinal and pharmaceutical preparations (81110-81800).....	609,456	29,139	244
Wearing apparel of man-made fibers, new (38521-38572).....	225,141	29,549	1,629	Books, maps, pictures and other printed matter (95100-95690).....	51,556	33,163	278
Diamonds (59900-59905).....	279,350	70	34	All other commodities.....	2,967,834	599,552	5,041
Electrical and electronic quantity and characteristics measuring and testing instruments and parts (70350-70379).....	201,759	9,527	670	150-199 pounds.....	2,725,804	564,909	3,308
Electron tubes and parts (70824-70844).....	233,887	9,859	783	Parts for commercial automobiles, trucks and busses (79151-79262).....	77,681	32,586	190
Crystal diodes and transistors, capacitors, resistors, and inductors (70848-70859).....	924,202	14,143	1,704	Medicinal and pharmaceutical preparations (81110-81800).....	454,528	24,572	143
Miscellaneous electronic equipment and parts, except electron tubes and amplifier systems parts (70886).....	329,412	16,751	1,482	Books, maps, pictures and other printed matter (95100-95690).....	23,094	24,160	144
Parts for commercial automobiles, trucks and busses (79151-79262).....	143,011	43,840	2,712	All other commodities.....	2,170,501	483,591	2,831
Medicinal and pharmaceutical preparations (81110-81800).....	1,859,261	51,470	3,517	200-249 pounds.....	2,343,418	536,756	2,437
Motion-picture films, exposed or developed (91211-91245).....	285,789	30,802	3,311	Cut flowers and cut ferns or foliage (25991).....	13,203	20,876	97
Hearing devices, and specially fabricated parts and accessories, except hearing aid batteries, receiving tubes, crystal diodes and transistors (91581).....	309,294	2,037	335	Parts for commercial automobiles, trucks and busses (79151-79262).....	55,293	30,883	139
Books, maps, pictures and other printed matter (95100-95690).....	221,224	64,661	4,671	Medicinal and pharmaceutical preparations (81110-81800).....	242,109	18,637	85
Works of art, antiques and collectors' items (96100).....	307,007	2,265	164	Books, maps, pictures and other printed matter (95100-95690).....	25,404	24,115	110
Jewelry and related items of solid gold, platinum, and platinum group metals, with or without jewels (96200).....	200,270	352	78	Works of art, antiques and collectors' items (96100).....	221,020	679	3
All other commodities.....	7,011,711	736,408	51,739	All other commodities.....	1,786,389	441,566	2,003
50-99 pounds.....	6,002,992	919,660	13,373	250-299 pounds.....	1,563,024	393,773	1,451
Furs, undressed (07150-07298)....	352,916	4,724	68	Parts for commercial automobiles, trucks and busses (79151-79262).....	49,357	22,800	84
Furs, dressed or dyed (07440, 07460, 07498).....	221,626	2,144	31	Books, maps, pictures and other printed matter (95100-95690).....	14,684	20,230	75
Cut flowers and cut ferns or foliage (25991).....	27,862	27,976	408	All other commodities.....	1,498,983	350,743	1,292
Wearing apparel of man-made fibers, new (38521-38572).....	177,987	28,009	407	300-399 pounds.....	2,423,485	708,459	2,083
Crystal diodes and transistors, capacitors, resistors, and inductors (70848-70859).....	210,315	7,149	105	Cut flowers and cut ferns or foliage (25991).....	12,905	27,438	81
Parts and accessories for tractors, except engines and attachments (78891, 78895).....	55,891	21,111	301	Parts for commercial automobiles, trucks and busses (79151-79262).....	66,859	35,834	104
Parts for commercial automobiles, trucks and busses (79151-79262).....	104,313	47,516	679	Medicinal and pharmaceutical preparations (81110-81800).....	257,073	23,469	69
Medicinal and pharmaceutical preparations (81110-81800).....	785,910	43,132	628	Books, maps, pictures and other printed matter (95100-95690).....	23,091	33,844	98
Books, maps, pictures and other printed matter (95100-95690)....	77,495	51,113	756	All other commodities.....	2,063,557	587,874	1,731
Works of art, antiques and collectors' items (96100).....	283,632	2,428	34	400-499 pounds.....	1,873,205	524,637	1,189
All other commodities.....	3,705,045	684,358	9,956	Parts for commercial automobiles, trucks and busses (79151-79262).....	48,142	23,608	53
100-149 pounds.....	4,365,884	764,544	6,426	Medicinal and pharmaceutical preparations (81110-81800).....	361,448	24,850	56
Furs, undressed (07150-07298)....	244,502	4,317	38	Books, maps, pictures and other printed matter (95100-95690).....	17,960	27,111	61
Furs, dressed or dyed (07440, 07460, 07498).....	333,684	2,818	25	All other commodities.....	1,445,655	449,068	1,019
500-599 pounds.....				500-599 pounds.....	1,268,752	479,087	888
600-699 pounds.....				Baby chicks (00191).....	1,230,963	394,914	615
All other commodities.....				All other commodities.....	32,222	20,505	33
					1,198,741	374,409	582

*"Special Category" commodities are those commodities which, for security reasons, detailed commodity or commodity by country information cannot be released. For further explanation and list of "Special Category" commodities see April 1958 issue of *Foreign Trade Statistics Notes*.

**Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

Table 2.—UNITED STATES EXPORTS BY AIR—SIZE OF SHIPMENT IN TERMS OF SHIPPING WEIGHT GROUPS, BY SELECTED COMMODITY GROUPINGS—MARCH 1960 (EXCLUDING "SPECIAL CATEGORY"** COMMODITIES)—Continued

(Commodity groupings are shown where the air export value was \$200,000 and over, and/or the shipping weight was 20,000 pounds and over)

Size of shipments (shipping weight groups), Schedule B** commodity description and code number	Value (dollars)	Shipping weight (pounds)	Number of shipments	Size of shipments (shipping weight groups), Schedule B** commodity description and code number	Value (dollars)	Shipping weight (pounds)	Number of shipments
700-799 pounds.....	681,915	307,826	416	3,000-3,999 pounds—Continued			
800-899 pounds.....	965,069	273,737	324	Electric household motor-driven appliances and parts (washing machines, vacuum cleaners, dishwashers, etc.) (70680-70705).	35,517	32,472	9
Medicinal and pharmaceutical preparations (81110-81800).....	336,959	10,185	12	Aircraft engines, reciprocating air-cooled, under 400HP, new, and all used or rebuilt reciprocating aircraft engines (79460, 79468).....	89,550	22,260	6
All other commodities.....	628,110	263,552	312	Medicinal and pharmaceutical preparations (81110-81800).....	102,067	23,720	7
900-999 pounds.....	476,330	220,459	233	All other commodities.....	597,059	404,936	118
1,000-1,999 pounds.....	3,802,239	1,452,885	1,064	4,000-4,999 pounds.....	987,922	411,315	92
Eggs in the shell (00921, 00925). Wearing apparel of man-made fibers, new (38521-38572).....	80,914	66,644	45	Eggs in the shell (00921, 00925). Refrigerators, electric, household type (70580).....	29,343	55,701	12
Refrigerators, electric, household type (70580).....	153,468	25,384	19	Television receiving sets (70815) Medicinal and pharmaceutical preparations (81110-81800).....	15,428	26,083	6
Electric household motor-driven appliances and parts (washing machines, vacuum cleaners, dishwashers, etc.) (70680-70705)....	42,303	58,805	40	Manufactured plastic products (including kitchenware and tableware) not specially fabricated for particular machines or equipment (98151, 98159).....	40,139	31,787	7
Television receiving sets (70815) Parts and accessories for internal combustion engines, except automobile, truck, bus, and aircraft engines and motorcycle motors (71590).....	35,153	34,817	22	All other commodities.....	380,780	17,091	4
Parts and accessories for tractors, except engines and attachments (78891, 78895).....	80,882	41,035	30	5,000-5,999 pounds.....	26,110	27,301	6
Parts for commercial automobiles, trucks and busses (79151-79262). Medicinal and pharmaceutical preparations (81110-81800).....	49,240	25,710	18	All other commodities.....	496,122	253,352	57
Musical instruments, parts and accessories (92110-92975).....	48,579	31,850	24	6,000-6,999 pounds.....	334,137	241,176	44
Books, maps, pictures and other printed matter (95100-95690)....	111,408	68,872	50	Eggs in the shell (00921, 00925). Television receiving sets (70815) All other commodities.....	14,620	22,490	4
Works of art, antiques and collectors' items (96100).....	412,520	56,679	43	278,918	21,437	4	
All other commodities.....	140,379	44,859	31	All other commodities.....	109,923	197,249	36
2,000-2,999 pounds.....	1,338,470	819,114	338	7,000-7,999 pounds.....	123,554	197,634	31
Eggs in the shell (00921, 00925). Refrigerators, electric, household type (70580).....	39,134	42,378	16	Bookkeeping and accounting machines, new, except punched card type (77601, 77606).....	13,631	24,495	4
Electric household motor-driven appliances and parts (washing machines, vacuum cleaners, dishwashers, etc.) (70680-70705)....	51,845	87,156	36	All other commodities.....	109,923	173,159	27
Television receiving sets (70815) Parts for commercial automobiles, trucks and busses (79151-79262). Aircraft engines, reciprocating, air-cooled, under 400HP, new, and all used or rebuilt reciprocating aircraft engines (79460, 79468).....	23,642	39,032	16	8,000-8,999 pounds.....	448,992	148,784	20
Medicinal and pharmaceutical preparations (81110-81800).....	108,883	54,481	22	Eggs in the shell (00921, 00925). Television receiving sets (70815) Electronic computers, related information processing machines, parts and accessories (77626, 77628).....	123,746	21,740	3
Musical instruments, parts and accessories (92110-92975).....	53,125	42,245	18	All other commodities.....	325,246	127,044	17
Books, maps, pictures and other printed matter (95100-95690)....	63,215	30,416	12	9,000-9,999 pounds.....	385,947	170,531	20
All other commodities.....	75,666	20,048	8	Manufactured plastic products (including kitchenware and tableware) not specially fabricated for particular machines or equipment (98151, 98159).....	20,273	33,879	4
14,139	46,856	18	All other commodities.....	43,466	25,642	3	
828,800	420,100	177	10,000 pounds and over.....	213,000	8,625	1	
921,619	637,942	184	Cattle for breeding (00113, 00115).....	109,208	102,385	12	
51,727	86,345	24	Eggs in the shell (00921, 00925). Bakery products (10781).....	207,074	190,097	20	
45,699	68,209	20	861,601	1,258,335	78		

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**Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

Table 2.—UNITED STATES EXPORTS BY AIR—SIZE OF SHIPMENT IN TERMS OF SHIPPING WEIGHT GROUPS, BY SELECTED COMMODITY GROUPINGS—MARCH 1960 (EXCLUDING "SPECIAL CATEGORY" COMMODITIES)—Continued

(Commodity groupings are shown where the air export value was \$200,000 and over, and/or the shipping weight was 20,000 pounds and over)

Size of shipments (shipping weight groups), Schedule B** commodity description and code number	Value (dollars)	Shipping weight (pounds)	Number of shipments	Size of shipments (shipping weight groups), Schedule B** commodity description and code number	Value (dollars)	Shipping weight (pounds)	Number of shipments
10,000 pounds and over—Continued Cotton yarn, gray, unbleached (30117).....	30,679	50,252	4	10,000 pounds and over—Continued Dishwashers, etc., (70680-70705).....	27,454	26,674	2
Noils, wastes, and recovered fibers, wholly or in chief weight wool (36260).....	2,530	25,300	1	Television receiving sets (70815).....	71,177	44,755	4
Shipping containers, boxes, cartons and sanitary food containers, paper and paperboard (48730-48780).....	27,339	156,511	11	Parts and accessories for rotary drill rigs (73112-73225).....	68,971	25,847	2
Construction materials, metal (61918-61922).....	17,570	40,573	4	Medicinal and pharmaceutical preparations (81110-81800).....	21,709	22,346	2
Refrigerators, electric, household type (70580).....	38,112	69,144	4	Manufactured plastic products (including kitchenware and tableware) not specially fabricated for particular machines or equipment (98151, 98159).....	140,472	316,789	12
Electric household motor-driven appliances and parts (washing machines, vacuum cleaners,.....				All other commodities.....	339,788	341,154	22
				Shipping weight not available.....	116,240	...	135

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**Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

FLOWERLIFT!

(Continued from Page 12)

On first entering Bloemenlust, one's impression is that roses and carnations constitute the bulk of the flowers for sale. But at Barendsen they were packing, in addition, lilac, freezia, iris, tulips, ixia, lilies of the valley, tritonia, sweet peas, anemones—and more, but one can't take them in. The color and freshness of them are excelled only by the scent of them. Perhaps the scent seems especially delightful to anyone normally resident in New York. (By the same token, I was told that parts of Amsterdam are no bed of roses in summer when the stagnant canal water is low. It figures.)

From the Barendsen packing room we went to that of Vooren & Sons. Here a smiling young man in a khaki drill coat offered the information that his firm flies carnations to New York in particularly large quantities during the months of August and September, and again in December for the Christmas trade. In summer, also, they export by air quantities of honesty to California. He did not explain why Californians, in particular, should show an obsessive need for honesty, but he did remark that in Holland the labor is cheaper for cleaning the silvery discs which make this plant suitable for decoration in its dried form.

Next, in the main hall, we took a look at the carts of flowers owned by Zurel, a 50-year-old firm which has been exporting flowers by KLM for 36 years. Here I was told that blooms bought by 6:30 a.m. would be placed

on the 8:30 a.m. plane for Milan, and that they would be in that city by 11:00 a.m. This may not be remarkable in itself. But it does seem rather remarkable in contrast to the fact that flowers bought at the auction will usually not be on sale in Amsterdam, only four miles distant, before 3 p.m. The explanation is that the local buyers make it a practice to wait for lower-priced flowers.

The flowers, by the way, are brought into the auction early every morning by truck, barge, parcel bicycle and carrier bicycle. Once purchased and packed, they are sped to Schiphol Airport or Amsterdam Central Station by Bloem-



express or Flower Express. The Co-operative Motortransport Company owns six trucks, one of which leaves the auction rooms every 10 or 15 minutes.

Moving into Jan Ekkerman's Aalsmeer office, we talked for a while over some excellent coffee. This slim, thin-faced, brown-haired man revealed the fact of his having been with KLM for 28 years—"It's seemed like five years!" he laughed—having joined at the age of 15 in the passenger department. During the wartime German occupation, he worked with the British Secret Service; he had alarming tales of hiding under the floor for five days, of sitting in a café with a short-wave radio in a

suitcase and German soldiers coming in and sitting down beside him, of supplying information leading to the bombing of the Gestapo headquarters in Amsterdam.

"Weren't you frightened?" I asked.

"Frightened!" He cast his eyes upwards, shivering.

His work nowadays contains no terrors. The buyers tell him what they've bought and where it's destined for, and he keeps in constant touch with the KLM freight office at Schiphol, arranging for cargo space in aircraft. Ten Hove, who is headquartered at the airport, also maintains contact. If one plane's cargo space is filled, the next flight may have to be used, or an extra flight put in service.

No trip to Aalsmeer is complete without a visit to a glasshouse. One might almost say that no trip to the place is possible without such a visit, inasmuch as 320 acres of ground stand under glass—which makes Aalsmeer almost a glass village.

It had been arranged for me to inspect Gebr. Barendsen's orchid houses. (As stated, they grow several kinds of flowers, but there wasn't time enough for a comprehensive tour.) Like all such, they are warm, moist, and informed with a churchlike peace and quiet. Mr. Ten Hove and I walked between perfectly-tended beds, admiring the exotic if occasionally somewhat sinister-looking blooms . . . nature's design, it would seem, being for the flower to entice flies into a purple-spotted pouch and then consume them. That could be a libel on the orchid. If it is, it's the orchid's fault for looking that way.

Nothing could be less sinister than the men and girls moving quietly about their tasks in the houses, or the narrow canals running between them, each one with its small flat barge deputizing, as far as I could make out, for the common or garden wheelbarrow. Also, delicate blooms sustain the minimum of shocks when gliding over calm water.

The most perishable of all flowers, orchids require extra special care in packing. Each head is carefully cushioned in wood wool or paper wool, and each stem is inserted into a small water-filled bottle fitted with a rubber top to prevent leakage.

"That's really babying them, isn't it?" I commented.

Orchid plants are imported from South Africa, South America and Aus-



tralia. In December orchid flowers are flown in from Singapore and Bangkok for re-export.

In answer to a question as to which forwarding firms specialize in the air shipment of flowers in general, Ten Hove gave me the names listed below. Where a forwarder's flower traffic is important to one country in particular, that country is mentioned.

1. R. S. K. (Reimann, Stok & Ker-sken.) *Sweden*.
2. Schenker & Co. *Germany*.
3. Copex, Inc. *United States and Canada*.
4. HAT (Holland Air Transport).
5. G. M. Brinkhof.
6. Wm. Muller & Co.
7. Transport My Traffic.
8. Brash & Rothenstein. *Germany*.

Too, Plantex Boskoop handles the air shipments of plants, though it does not handle cut flowers.

Freight forwarders handle about 75-80% of the air shipments of flowers to all countries. These can be broken down thus: to the United States, 60%; to Sweden, 30%; to Germany, 80-90%; to England, 100%.

Driving past a brilliantly-striped bulbfield on the way to lunch at Treslong, KLM's agricultural expert mentioned that the man walking along closely scrutinizing the tulips was known as a sickness picker. His job? To look for trouble, and when he found it to root it out—fast.

Incidentally, when the tulips are grown for the bulbs alone, not for the flowers, the cups are removed when in full bloom in order that the whole

strength of the plant may be concentrated on the bulb and the bulblets which it will produce. If the flower is left on, a good deal of the reproductive energy will be directed towards the seeds. The cups snapped off, the leaves and stem are allowed to die down naturally, their goodness sinking into the bulbs. Reproduction by way of seeds is far slower and therefore less economical than by way of bulblets.

Discussing the operating principle of Aalsmeer, *Union is Strength*, Mr. Ten Hove told me that during the dark war years, which brought such crippling difficulties as shortages in coal and manpower (not to mention almost endless regulations), the cut flower industry might well have died had it not been for the cooperative efforts of the community. Cut down in every vital respect, together they nursed the industry not only back to, but far beyond, its former level. By extension and modernization, the original export market was recovered and vastly extended. This, of course, was given a terrific assist by the postwar mushrooming of international air transportation; an opening up that even today sees new horizons in the air movement of this commodity. It is hard to imagine, but it is true, that Holland's importers are bringing in tons of Florida gladioli by air (see Page 12).

After a morning spent with my notebook at the ready—a morning, no matter how interesting and enjoyable, requiring nonstop concentration—the afternoon at Keukenhof came as pure delight.

It isn't surprising that each April, when this beautiful park filled with unimaginable quantities of unimaginably lovely bulbs in full bloom is opened to the public, people flock there in tens of thousands, not only from Holland but from all the European



countries. Having seen it for myself, it appeared to me more surprising that people from all over the world don't visit Keukenhof in April.

Originally the estate of Jacqueline of Bavaria, the park has been landscaped for the special purpose of displaying Dutch bulbs in all their multiplicity and all their glory for six weeks each spring. If multiplicity seems a vague term, one simple statistic will explain my inability to be more explicit within the space of one article: in the hot greenhouse—there are two greenhouses,

one hot, one cold—and the greater part of the display is in any case outdoors—600 varieties of tulips alone are exhibited.

The flower business, I learned the next day, is essentially a fluctuating one, with the pre-Easter and Christmas seasons forming steady peaks during the year.

"What are the biggest export months?" I asked one of the Dutch airline's traffic executives at the airport.

"September, when approximately eight tons of flowers are flown out of Schiphol by my company. And December; in December we fly out approximately 13 tons because of the Christmas trade. In March and April, we carry approximately eight to 12 tons; in May, approximately nine to 15 tons.



January and February are lowish, because flowers are fewer in quantity, and expensive."

One point he was absolutely insistent on was that there was no forecasting from previous years, largely because of the weather. In good weather, other countries would produce more flowers of their own and thus require to import less. In bad seasons, where they had few or no hothouses of their own to call on, they would draw heavily on the forced flowers of Holland.

Of the total inbound and outbound shipments of cut flowers last year, about 70% were moved by air. Of this total, KLM carried 95% of the inbound shipments, 90% of the outbound.

An indication of how its flower traffic by air has grown are these figures supplied to me by the Dutch airline: 1954, 1.4 million kilos; 1955, 1.55 million kilos; 1956, 1.58 million kilos; 1957, 1.7 million kilos; 1958, 1.75 million kilos; 1959, 1.8 million kilos; and 1960, 1.88 million kilos.

One of the earliest air export commodities, flowers still have priority in the freight sheds; this, of course, is by reason of their high perishability. They must arrive at the airport one hour before departure. During that hour they are weighed and measured, the airwaybill is cut, and the necessary documents are handed to Customs for the export permit to be obtained.

The export peaks are around 9 a.m. and between noon and 3 p.m. Sweden and Norway are the biggest all-year-round buyers. The biggest seasonal buyer is Germany. Italy is a heavy

buyer of hothouse flowers, as that country grows none of its own. It is perhaps interesting to note that England alone buys cut flowers on a commission basis—the flowers are carried over and the prices are fixed later.

Wandering around the sheds, I saw giftboxes of flowers labeled to places as far afield as Tegucigalpa, Montreal and Dharan.

During lunch at Boskoop, the plant exchange (where a superb exhibition called Flora Nova was being held by way of celebration of Boskoop's 100th anniversary), I managed to gather some information about W. C. Ten Hove. Thirty-eight years of age, he is of medium height and rather stocky build, with the faintest sprinkling of gray in his black hair. He wears glasses and has a well-cut, thoughtful face.

Ten Hove joined KLM in 1947. For the first six months he worked as a driver. Then he got a break by driving a van one time for the Publicity Department, the regular driver being sick. As a result of this, he was taken on by Publicity as a film operator in the showing of promotional films. He took to giving talks, his aptitude for this being such that after three-and-a-half years with the department he was offered a job as a freight salesman. After spending two years at The Hague in

this capacity, he was put in charge of the whole agricultural section. During the nine years he has spent in charge of this domain, the turnover has increased from one million to three million guilders.

Ten Hove is a reticent man, not in the least given to tooting his own horn. It was later that afternoon, and arising out of the conversation, that he told me the story of how he started selling the Boskoop growers on flying plants nine years ago. It took him two years of



patient persistence to get this going in any quantity. He achieved it by the production of a cost comparison study based on the carriage of 1,000 plants, valued at \$1,000, from Boskoop to a given point in the United States by surface and by air.

Carriage by air showed certain obvious gains: such as, three cardboard boxes or light wooden cases, value \$5, as against (sea) two wooden cases and packing materials, value \$23; insurance (air) $\frac{1}{2}\%$, (sea) $7\frac{1}{2}\%$; broker's

charge in the plant inspection house at Idlewild (air) \$3, trucking and fumigation charges at Hoboken (sea) \$10. There were other gains by air; but even so, his analysis showed an overall cost of \$140 when the plants were flown to their United States destination, as against \$115 when the same plants were shipped by surface. So where did the gain lie?

It lay in one very simple but vital fact: that it took 18 days to deliver the plants by surface means, with an expected loss of about 20%; whereas delivery by air took three days, with a loss of only about 1% to 2%. Therefore, taking into consideration the total cost, including losses, air is half that of surface.

Which brings us to An Angry Middle-Aged Man.

He is Herman Grootendorst, of the firm of F. J. Grootendorst. Mr. Grootendorst was the chairman of the Show Committee, and we ran into him during an inspection tour of Flora Nova. When I was introduced to him, and he found that I was the representative of an American magazine, his anger knew no bounds.

By the time he'd finished with me, I could see his point.

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resided in the export of plants. In 1919, an Act was passed in the United States requiring that all plants imported into this country must have had their roots washed absolutely clean. The Act has never been repealed. The ruling does not obtain in any other countries. Grootendorst hotly maintains that any diseases which might be brought into the United States by means of earth clinging to the roots of plants already exist in the United States anyway, and that the Act is retained for the sole purpose of protecting American growers. In application, it is frequently disastrous, as even when the roots of plants are packed in wet moss, they are liable to dry out, and die out, when subjected to a journey of long duration. Grootendorst insisted that the present total of 40-45 tons of plants flown to the United States shows a decrease over the total flown seven years ago; and that this decrease has been due to U. S. protection.

(After my return, I was informed by an authority of the Department of Agriculture that soil was the most effective means of bringing foreign plant pests into this country. He stated that it was true this country had its own plant pests, but it was not seeking to add to them.)

As chairman of Flora Nova, Mr. Grootendorst was to be unequivocally congratulated. The exhibit was laid out in two large halls, one of them a temporary structure, the other the place where, normally, the daily exchange of plants is being carried out. Each hall had been arranged like a garden, with paths leading between beds planted with absolutely glorious azaleas, rhododendrons, roses, small conifers, and numerous other plants. Walking slowly round with Mr. Ten Hove, over and again I found my breath literally

wire from the buyers in the States that the ground is ready for planting. If the conifers were shipped by sea, long before their arrival the weather could change and conditions could be unsuitable for planting.

"About 220 plant and bulb exporters visit the United States each year. I arrange their passages."



At this point Lex Spaargaren popped up. He looked like an extremely nice high school boy of 16. Slender, cheerful and friendly, he turned out to be around 23 or 24 years of age and a fully-blown plant grower (his firm is W. J. Spaargaren). He regularly visits Canada and the United States twice each year.

Like the chairman of the show, he bemoaned the fact that some of the plants on exhibition had not remained at the very peak of their perfection. "You should have been here a few days ago—!"

That evening, under the guidance of George van Zonneveld, of van Zonneveld & Co., bulb-growers, Mr. Ten Hove and I saw the floats for the Flower Parade being constructed at Sassenheim. The Flower Parade is the highlight of the bulb season. An artist submits designs for the floats to a committee, and the various growers each choose a design and make up a float accordingly. The design is carried out in a kind of straw matting which is mounted on two vehicles; the matting is then entirely covered with the heads of flowers — mostly hyacinths — which are skewered on with hair pins. The work takes hours (some of them were going to be worked on for a good part of the night), and hundreds of thousands of flowers are used. The scent in the sheds was almost overpowering. It prompted me to ask whether there are any perfume manufacturers in Holland similar to the ones at Grasse in the South of France. The answer seemed to be no—and left me wondering why it was no. Around Sassenheim one even



taken away by the sight of some incredibly lovely azalea or rose. KLM's agricultural representative, remaining in control of his breath, was able to maintain a steady supply of information, such as:

"About 15% of plants exported to the United States go by air. All clematis are airborne, as the rate of damage by surface transport is 60-65%. All one-year rhododendrons and roses fly, too. All one- and two-year conifers are transported by air; they are shipped out by plane on receipt of a

sees advertisements created in heavily-scented flowers—huge roadside advertisements for gas, the whole thing made of hyacinths.

The building where the floats were being constructed, Mr. van Zonneveld said, contains laboratories where the diseases afflicting bulbs are under constant study. It appears that this or that disease can strike down an entire bulbfield overnight, and it is the scientists' job to detect the cause and provide an antidote. With bulb diseases, as with human diseases, the bug with time can develop immunity to the chemical produced to fight it, and thus the scientists have their work cut out to keep ahead of the game.

(I hadn't known, by the way, that over 1,000 years ago the Crusaders came back from Asia Minor with tales of there having seen the wild tulip in its natural habitat; and that by 1571 the bulb is known to have been transported to Holland, where, by the early 1600s, a flourishing trade in bulbs had already been established.)



Mr. van Zonneveld is a tall, well-built, dark-haired man in his thirties. His wife, petite, slim and blonde, is an ex-KLM hostess. It was from the balcony of their house at Sassenheim the next morning that I saw the 40 odd floats comprising the Flower Parade passing by. That night I was due to arrive back in New York by jet. As the children swarming on the balcony clapped and laughed (what child, or grown-up either, could resist a white-and-violet hyacinth cow which, as a final touch of fantasy, was showering milk into a bucket?), I knew that I should be taking back with me a good deal more than a notebook jammed with statistics and their application to air freight. Statistics are important. But the kindness, the orderliness, the industry, the patience and the humanity of the people of the Netherlands are important, too. And so, in a world of hideous fallout, are flowers. • • •

HOW TO DO BUSINESS WITH LOWER INVENTORIES

(Continued from Page 20)

creased, it is still a very small factor in freight transportation. Despite an 18-fold increase in ton-miles flown between 1946 and 1959, the airlines still carry only $\frac{1}{2}$ of 1% of the freight shipped by all modes of transportation.

Besides equipping themselves with

planes specially designed for cargo, the airlines realize that their ground handling activities are totally inadequate and are addressing themselves to this problem. These and many other factors lead some in the industry to believe that air freight rates will drop

30% to 50% in the foreseeable future. If these reductions materialize, the comparison of total distribution cost by air with that of surface transportation will favor air for a much larger list of commodities. This, in itself, would do much to increase the airlines' share of available cargo business.

* * * * *

This ends my description of the five new developments in materials distribution which I have selected for discussion. When these developments are assessed as a whole, we see that the country's physical distribution processes are on the verge of a substantial speed-up with a corresponding reduction in leadtimes for purchased materials. But how does a cut in leadtime reduce the inventories needed to carry on our business?

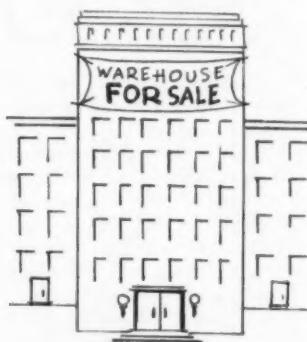
Inventories are cut in two ways:

1. Since the leadtime is shortened, the abnormal demand which might develop during the leadtime is less. So, less safety stock is necessary to take care of possible abnormal demand.

2. The cut in leadtime makes it possible to give our customers the service they require from longer distances. This makes it possible to close field warehouses and distribute from one plant stock or, at most, from plant stock plus a few regional warehouses. The cut in inventories resulting from closing warehouses is self-evident.

Many companies have already taken advantage of these opportunities to reduce inventories. As already stated, installation of a computer alone at Cyanamid's Pearl River plant resulted in an 11% drop in inventories during a period when sales rose 12%. This was due entirely to a reduction in required safety stocks.

According to published reports, Westinghouse has eliminated 109 field warehouses since 1958. Fifty-two more



are scheduled to be closed during the next five years. Heinz has closed 25 warehouses in 3½ years. Ten years ago, Lever Brothers maintained 140 public warehouses, now uses 40, and plans to cut this number by more than

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50%. Each remaining warehouse will be a distribution center for an entire line.

Raytheon Manufacturing Company is an excellent example of a company that has adopted and profited by the total marketing concept (*February 1960 AT; Page 16*). All the developments I have mentioned are part of its routine procedures. Orders are received on punched tape, processed on a computer, and shipped country-wide by air freight. As a result, all field warehouses have been or will be closed, with shipments made from a single distribution center. Annual savings of \$250,000 are indicated.

What should we as businessmen do to take advantage of these developments? First, we should be aware of them and of the concept that inventory can be reduced by adopting them. Secondly, we should study these and others in the field to see which ones apply to our operations. This can be done by a distribution study comparing present with projected costs, using new techniques. After thorough study, such changes as are indicated can be made to realize the reductions in inventories and costs which are available to us all.

* * *

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SPOTLIGHT

(Continued from Page 23)

oned. He was made a sales correspondent, with a finger in the small-claims pie. With war came a surge of correspondence, mostly complaints from passengers who had been bumped by the authority of priority-ticket holders. Stevens waded through all of these like a commando fording a chest-high swamp. He also found time to act as assistant to the general traffic manager and to the vice president-traffic and sales.

Stevens' department was moving along smoothly. In 1942, he applied for a post as assistant to the airline's manager of foreign travel. Willis Lipscomb, then American's general traffic manager, assigned him to the post.

Stevens' immediate superior resigned shortly afterward. The door opened wide for Stevens at a time when, he admits, he hardly knew what a passport was. In due time, he received the imposing title of director of international procedures.

American Airlines purchased American Export Airlines and changed the latter to American Overseas Airlines. Early in 1946 he flew to London, his first trip abroad. The Sikorskys had been retired; the DC-4 was the darling of the long-haul routes. AOA's planes landed at Hern, six hours by rail from the British capital. Vividly he remembers his first British meal: it was "high-tea" on the London-bound train.

Stevens spent three months in London, then moved on to a number of additional European stations. The communications system was only a shadow of what it is today. Often there was no precise knowledge of where an airliner was at a given moment.

Not long after his return to New York, the well-known aviation consultant, Charles A. Rheinstrom, invited Stevens to join his firm. The inducement was too good to miss: he joined Rheinstrom, specializing in sales planning, and assisting in organization and operations matters. He stayed with the company for somewhat less than 2½ years, then returned to the air transportation industry.

On January 1, 1949, Stevens became associated with Pan American World Airways as superintendent of tariffs and schedules. His initial job was to review and improve the international airline's tariff setup.

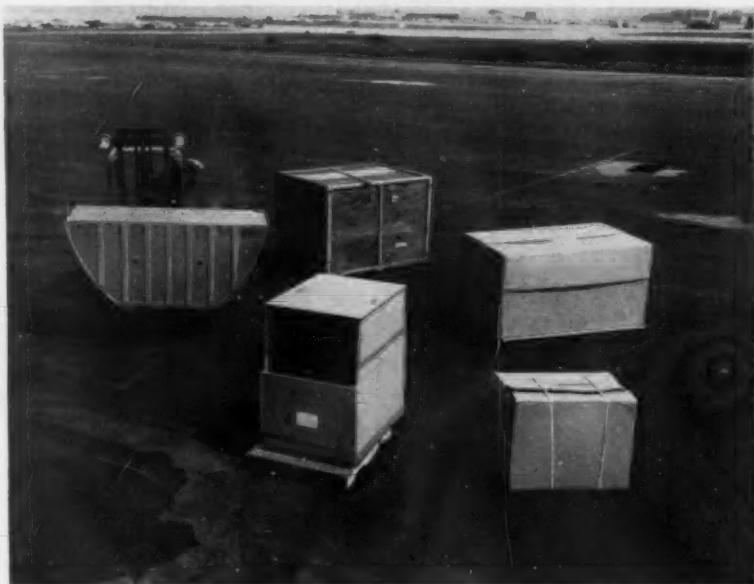
A procedure which had been recommended to Pan Am by Rheinstrom was entrusted to Stevens for activation. Under his guidance, the distribution of company tariffs, bulletins, and promotional material, previously handled by



an independent firm, was drawn together within the airline, shorn of excessive handlings, streamlined, and put into gear. Rheinstrom had estimated savings of \$50,000 a year through the new procedure. Stevens proved it could be several times that figure.

Additional duties cropped up. They were appended to, rather than replaced, his current ones, and brought his activities farther afield. As a member of a subcommittee, he attended his first meeting of the International Air Trans-

PAN AM ASKS: "WHAT'LL YOU HAVE?"



Just to show what shippers are packing their products into these days, Pan Am has spread around a few containers on the tarmac at New York International Airport. The basic principle underlying the design of each is sturdiness and light weight, a combination which is effective in reducing air shipping costs. In the photo, the fork lift holds an aluminum Jet Pak which was engineered to fit into the cargo hold of a jet transport. A collapsible cargo-mail container is in the center foreground. Behind it is the Fiberglas Van Pack, designed for household goods. The two cardboard containers at the right are for general merchandise and are disposable. (See advertisement on center spread.)

port Association. This took place in Copenhagen in 1949. Since that time, Stevens has been a regular and expected fixture there.

Meanwhile, his personal stock at Pan Am continued to rise. He attained the job of manager of tariffs and schedules, moved up to assistant general traffic manager, became manager of cargo sales in June 1957, and last year was named manager of cargo development.

Stevens' appearance on the international air cargo scene was an unplanned gradual transition of professional emphasis; an evolutionary process brought about by a growing awareness of the sleeping giant (as air cargo has been called) the more frequently he tackled marketing problems. The IATA sessions, where the language of negotiation could be naked and bruising, and where the art of horsetrading required the mettle and wile of a tough-minded diplomat, drew him deeper into the marketing aspects of air cargo. As his interest in this part of the air transportation picture broadened, he came to believe that the real needs of the shippers were not being taken care of as realistically and as determinedly as they should. He paid more attention to cargo tariffs and sales problems, then applied to Lipscomb for an opportunity to perform a key job in the cargo

business. Lipscomb eventually took positive action on it.

Daily Stevens makes the scenic run from suburban Pearl River in historic Rockland County on the west side of the Hudson, to bustling Manhattan. His wife, a native of Pittsburgh, teaches hygiene and is a school nurse in Pearl River. The Stevenses have two children: Guy, 23, a Yale graduate in political science and economics, who now is a graduate student on a fellowship at Cambridge, England; and Wendy, 19, a liberal arts freshman at Bucknell.

For relaxation, the Pan Am executive likes "puttering about the house," photography, and skiing. He is fond of "all kinds of music," a reflection of his personal kinship to the clarinet which he used to play as a member of college orchestras and bands. Most of his reading these days is confined to business periodicals, with some history and an occasional novel thrown in.

Stevens' intense interest in his job, not alone from the practical point of view but as well from the standpoint of a long-range challenge, is fairly obvious to those in and out of Pan Am. He told the writer:

"I have had the pleasure, in a subordinate way, to help develop United States air transportation. Now I am

delighted to be in a position to help international air cargo. We are at the stage today where the commercial air passenger business was 20 or 25 years ago.

"I remember years back when I was asked to leave offices because certain executives considered my attempt to convince them and their men to fly on routine business as 'immoral'. There is no moral issue today. Yet it is equally novel in distribution management of the present time to consider air cargo in its fullest economic sense."

Wendell Stevens has strong ideas on the subject of international trade by air. He is of that school of thought which insists that before new-type planes are bought, the volume of business must warrant their purchase. Further on this subject, he says:

"Until we have jetspeed freighters, the freighter today is only a backstop to passenger planes. I personally will not settle for less than a freighter with passenger-plane speed.

"It is my hope that Pan Am will become so reliably proficient that the shipper will not care what flight we put his shipment on—as long as it arrives there tomorrow. When we can guarantee our deliveries on the basis of year-in, year-out schedule integrity, then air transportation will have become a leading mode of distribution.

"International air cargo will never be built solely on the basis of emergency and semi-emergency shipments. We must develop it soundly. We must

create enough confidence in our industry so that the shipper and the consignee are able to relax, having used air transportation as a planned part of their production line-distribution-marketing complex.

"The development of round-the-clock loads is very important. The cargo jet can produce millions of ton-miles at low unit cost, but it must be kept filled and moving. The faster unit costs go down, the faster will the rates drop. Don't forget that low costs are built on the *total* performance on all routes, of all flights."

Stevens stated that among his company's ultimate aims are through surface-air quotations and through documentation. Pan Am has turned a serious eye towards remote manufacturing plants which produce exported items and which purchase materials abroad. Its effort in signing up over-the-road operators to air-truck agreements forms part of this plan.

"Basically what we know today is how to handle traffic between major airports," Stevens said. "Our air-truck and, later, air-rail contracts will help us to penetrate the interior."

Pan Am has in various stages of completion far-reaching plans simultaneously cooking, among them its global marketing service for shippers, automated freight terminals, and unit loading. It's a bubbly soup—and you can bet your nethermost dollar Steve is around the pot poking an exploratory finger into its agitated boil and tasting its savor.

R. M.

DOMESTIC GROWTH CURVE

(Continued from Page 14)

other flags, constitute the backbone of our working commercial "cargo" fleet in this country. Not too much imagination is needed to visualize the dampening effect this equipment situation has placed upon the course of development. On balance, perhaps we even ought to award medals for what *has* been accomplished to those who have been able to do it!

Actually, the starting point for the motor freight industry was just in advance of World War I, when the motor truck made its appearance following the earlier development of the passenger automobile. Need I note a parallel? In these earlier days the truck seemed to show much less promise than did the passenger car of becoming an important method of intercity transportation. Again, note a parallel. In any event, in 1910 there were approximately 10,000 trucks in general use, and they were rarely found off city streets. There was some small expansion up to World War I, so that in addition to

use for city delivery, trucks were being used as moving vans and started to appear in the hands of the nation's farmers.

The First World War then provided a tremendous impetus for accelerated development of truck design and usage, particularly in over-the-road operations, so that by 1920 there were over a million motor trucks in registered use. These early trucks bore little resemblance to their progeny which operate over the nation's highways today. Trucks of this earlier period were heavy, clumsy in design, using solid rubber tires with chain drives and inefficient power plants, and lighting their way after dark with carbide lamps. The truck-trailer combination, which was to be to the trucking industry what the DC-3 was to the airline industry, was in limited use in the early 1920s.

As I see it, we are constantly projecting ever bigger planes when we

talk about our "true" cargo aircraft to come. There is real danger in this trend. Anyone interested in the development of air cargo should be constantly alert to the threat of "size" when it starts to affect the flexibility and mobility of our operations.

Without being an engineer, I can, nevertheless, see the objective of greater size in the continued drive to find lower ton-mile operating costs. I can even visualize that if someone made a ship twice as big as the *Queen Mary*, he ought to wind up with certain reduced per-unit costs of performing the transportation he produces. Yet along the way, it seems to me, he must inevitably pick up certain offsetting disadvantages.

The thrust of his depreciation seems bound to substantially increase; his terminal and handling needs must be greatly magnified; and, because of the very complexity of the latter, he will necessarily lose a great deal of both mobility and flexibility. His operation will become confined to a tightly-laced corset. He is in a rigid pattern between a few fixed terminals, which offers little opportunity for escape, and which may or may not always provide the density of traffic that will permit both economic growth and sufficiency in our changing times.

He has become a carrier of commodities in *bulk* moving between a few high-density points. Unless we can visualize this as the true role of commercial air cargo in the future—and I have never heard anyone so suggest—there is grave danger to us in this regard. We may even unwittingly put ourselves out of the air cargo business commercially before we ever really get in it!

The major proposition against which we must check and recheck all of our concepts about any form of commercial transportation in the United States is the steady and rapid growth and decentralization of the country. We hear a great deal about the "population explosion." Granted this is a headline writer's dramatization. The fact remains that our population is increasing at a swift rate. Our birth rate is actually higher than that of India.

This pressure of population not only offers the prospect of increased consumption, and hence greatly expanded gross national product, but it has a meaning within transportation which commands earnest consideration. For the question is not only how many people, but *where* are they going to live and work, produce and consume? The die has already been cast on these questions. They are going to live, work, produce, and consume increasingly be-

yond the limits of the old familiar central high-density cities.

You have only to fly over America to note this outward expansion. And you have only to consult any listings of industrial activity to find what is happening in plant location. By far the great majority of all industrial production units are now being located well away from the city proper—often in very small towns, and sometimes in what we used to think of as remote places.

This trend, marked as it is now, will accelerate greatly as the 41,000-mile system of interstate defense highways nears completion. Only a portion of this mileage is now built, and the full potential cannot be appraised until it truly is a system with limited access roads, devoid of stop lights, forming a network from coast to coast. Here is a trend which is only now beginning to develop with any force, and the years ahead are ripe with promise of multiplied activity along these throughways.

Within transportation, the significance of this development is beginning to be apparent. From a business standpoint, this relocation of industry often points squarely to motor carrier service. We must retain every ability we have to compete.

Indeed, in some of these installations there is complete dependence on the truck for all inbound and outbound freight. Where once the basic requirement of any industry, so far as location was concerned, was that it be lodged



beside a railroad—and the way to market began at a railroad siding—this is no longer the rule. With a growing number of industries, this once sacred requirement is no longer a major consideration.

The impact of this development within commercial transportation can be shattering. It is worthy of consideration because it comes down to the fundamental assets of flexibility and mobility. Anyone who does not enjoy them is going to be handcuffed.

Railroads never truly enjoyed these assets. Railroads are handcuffed to their steel rails, and these patterns were laid down, to a great extent, in the last century when the nation was still pioneering. The peak of their mileage was in 1916, and the peak of trackage back in 1932, when our popu-

lation was about 125 million. Today it is around 180 million, or nearly 50% greater, and while this population expansion was taking place, the railroad plant shrank greatly, and today there are thousands of miles less trackage than during the depression. Lack of flexibility and mobility has helped do this to them. We need not let it happen to us. There are many places within the United States that can use our service. There will be even more of them tomorrow. We must look forward to serving them.

Apart from sheer size, there is one other apparent trend in thinking with respect to the development of cargo aircraft which we might well take a long look at. That is, the purpose, or the mission, of the airplane, and—again—I deliberately talk solely about commercial operations, conducted within our own country.

Somehow—undoubtedly because of the apparent magnitude of research and development costs—we have been trapped into thinking of building one single machine which will be all things to all people. We are caught up with those who seem obsessed in looking for a prime mover which will fly nonstop across the Pacific on the one hand, nonstop across the Atlantic on the other; a machine which, in the criticism of Senator Mike Monroney, should also "permit landings at the South Pole, air drops over Berlin at 50,000 feet, and everything else from galleys to antisubmarine armor plate." Meanwhile, the same machine must be able to earn money for us by carrying household appliances from Mansfield, Ohio, to Mobile, Alabama.

Some things are possible. Others are not. In truthfully sorting this one out, we may well find it to be the same kind of practical nonsense as trying to bat against your own pitching.

Perhaps we ought to return to the old-fashioned method of putting on our pants one leg at a time. If we recast our thinking, sort things out, and put them in a different perspective, we might even find merit in seeking to develop good cargo airplane for commercial operation within the United States, which, after all, is not a sea of water, but one consisting of more than 54,000 communities, offering the greatest combined transportation market on this globe.

We used to follow this kind of approach in the development of passenger aircraft, and it worked right well. We never set out to initially design or build for the military or for international operations—yet the end results ultimately became of great service in both these other areas. Meanwhile, we

made some money with aircraft designed for our purpose. This method worked once. It might get us off of our present dead-center and, conceivably, even work again, thereby short-cutting another possible 16 years of inaction. We shall never know unless someone tries it.

In trying it, the present times would even appear to offer a propitious climate for federal aid of some sort, if



that must be. Subsidy for cargo operations has been suggested as one way to do this; however there are people who sincerely believe this is not the proper approach, and, further, that it may even overlook the will and mood of Congress. Guaranteed loans have also been proposed, but others have appropriately noted the development of the aircraft must come before anyone needs to be concerned about his financing to acquire it. Now Donald Douglas, Jr., in a speech made in New York on March 3, has suggested legislation similar to that long enjoyed by the maritime industry.

Undoubtedly there is some generally acceptable way, if only by design awards, for some branch of the government to legitimately participate in the initial costs of a commercial cargo aircraft as a spur to new productivity and to foster higher economic growth. Such affirmative action would not only bolster both manufacturers and operators, but would also help create an entirely new frontier in the sky. The arithmetic of that story is simply this—

► The .05% of total intercity ton-miles now moving in the air could be carried in only 20 proper cargo aircraft.

► Penetration of the market to .5% of the total would require 200 of such aircraft.

► Should air cargo come into its own, and move 5% of the total, then 2,000 of such aircraft would be usefully employed.

In the process of doing this, an entirely new industry would have been created, inasmuch as our full commercial fleet today consists of less than 2,000 airplanes. And, while we might not be exactly like the military, we would, nevertheless, always be around to become just as useful to them in time of need.

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SERVICES

DOMESTIC

BRANIFF

Electra II propjet flights recently were inaugurated on the Newark-Texas run. The flight is via Washington, D.C.

Braniff last month opened the first jet service between Dallas and Denver, with the nonstop run reduced to 90 minutes.

EASTERN

Starting June 1, the carrier accelerated schedules between 33 cities with the restoration of newly modified *Super Electras* to service. Speed of these propjets is 400 miles per hour.

On June 11, Eastern inaugurated service into Dallas and Fort Worth, with a daily flight between those cities and New Orleans, Tampa, and Miami. A week later, the service expanded to provide three flights daily, one of these stopping at St. Petersburg instead of Tampa.

NATIONAL

When National Airlines inaugurated its new transcontinental route on June 11, Florida and California were linked by five daily round-trip flights. Two daily jet flights are scheduled between Miami and Los Angeles—one via Tampa, and the other via New Orleans and Houston. A daily round-trip propjet flight now serves Miami, New Orleans, Houston, San Diego and Los Angeles. Miami received a daily round-trip propjet flight to San Francisco and Las Vegas, via Tampa, New Orleans and Houston. Jacksonville and San Francisco have received a daily round-trip propjet run, via Orlando, Tampa, New Orleans and Houston. Local flights via Tallahassee, Marianna, Panama City, Pensacola and Mobile are making connections in New Orleans with flights to San Francisco and Los Angeles. These, it was pointed out, now give Northern Florida and Southern Alabama access to the new route.

National has introduced *Super Electra II* service between New York and Norfolk. This is the first time that Norfolk has received scheduled *Electra* service.

UNITED

The airline last month inaugurated jet flights to Kansas City. Nonstop Boeing 720s now operate between the Missouri city and Washington-Baltimore and Denver.

Thirty-two round trips per week between California and Honolulu are scheduled for this summer, starting June 10. All flights will be with DC-8 equipment.

United Air Lines has opened the first through-plane service ever offered between New York and Honolulu.

INTERAMERICAN

BOAC

Boeing 707 service has been introduced on the New York-Lima run, via Nassau. Twice-weekly service is on Tuesdays and Thursdays. New York-Lima flight time is 8:20 hours.

BRANIFF

Daily jet service between Mexico City, San Antonio, Dallas, Kansas City, and Minneapolis-St. Paul was established several weeks ago. This service is on a daily basis.

PAN AM

The airline has resumed its daily service between Miami and Havana.

Pan Am also reported that it has established the first jet service to Costa Rica, making four flights per week between Houston and San Jose, via Mexico City and Guatemala. Houston-San Jose flying time: 4:45 hours.

PANAGRA

Interchange flights from New York to South American cities served by Panagra has been upped from nine to 12 per week. The three new flights (Monday, Thursday and Saturday) stop at Miami, Panama, Cali, Quito, Guayaquil and Lima. The Saturday flight continues through to La Paz.

VARIG

Effective July 8, the Brazilian air carrier adds one jet round trip to its New York-Rio schedule. This will leave New York on Fridays at 7:30 p.m., with scheduled flight time 9:10 hours. Northbound the new jet flight will operate Tuesdays, leaving Rio at 9 a.m. Other jet flights depart from New York every Tuesday, Thursday and Saturday; *Super G Constellation* flights, every Monday and Friday.

WESTERN

Boeing 720B fanjet flights are now in operation between Mexico City and Los Angeles, San Francisco, and Seattle-Tacoma.

TRANSATLANTIC

AIR FRANCE

Airlift capacity on the North Atlantic has been raised by one-third with the introduction of Lockheed 1049H *Super Connie* airfreighters. The French carrier estimates that its cargo airlift capacity is now at the half-million-pounds-per-week mark.

BOAC

The June 1-September 30 schedule calls for a total of 138 North Atlantic flights per week, 100 of which are between United States points and Britain and Europe, and the balance from and to the Montreal and Toronto gateways.

The British airline last month welded a new link between the capitals of the United States and England with the opening of Boeing 707 jet service. The new daily run from Baltimore Friendship International Airport (which serves Washington, D.C.) calls at either New York or Boston en route to London. Baltimore-London flying time: 7:40 hours.

IRISH

A quarter-million pounds of cargo lift aboard Irish Airlines' jets will be available

to shippers each week, starting June 16. Francis de Matlachowski, cargo manager, reports a summer schedule of 15 round trips per week, double the number operated on this route last year.

SABENA

The Belgian air carrier has upped its weekly DC-7F all-cargo flights between New York and Brussels to three flights. Alex Igarto, cargo manager, points out that these freighter flights supplement Sabena's daily passenger-cargo jet services to 110 cities in Europe, Africa, and the Middle East.

SAS

The New York-Glasgow jet service has been increased to a daily operation.

TRANSPACIFIC

JAPAN

JAL has increased its cargo runs between the West Coast and Tokyo to three DC-7F flights per week, including Seattle for the first time. Cargo lift has been upped even more with the addition of another DC-8 jet passenger-cargo flight. The latter aircraft, however, is slated for JAL's transpolar operation to Europe which opens this month.

Eastbound from Tokyo, two DC-7F freighters operate to Honolulu, San Francisco and Seattle, arriving on Tuesdays and Saturdays at 10:20 p.m.; the third terminates at San Francisco at 6 a.m. on Friday. The three DC-7F westbound flights depart San Francisco International Airport on Sundays, Wednesday, and Saturdays.

TAI

Twice-weekly DC-8 jet service has been opened between Los Angeles and Tahiti. Westbound flights are every Thursday and Friday, the jets flying nonstop to Papeete. Flying time is less than eight hours. Air France is TAI's general agent in North America.

INTRA-EUROPE

AIR FRANCE

Caravelle jets have been placed in operation on the Paris-Moscow route. They depart from the French capital on Mondays, Thursdays and Saturdays, with flying time 3:55 hours.

OLYMPIC

Comet 4B jet hauls have been started on the Greek carrier's Amsterdam-Frankfurt-Zurich-Athens route. Olympic Airways now operates *Comets* on all its international services, and DC-6Bs in domestic service.

EUROPE-SOUTH AMERICA

IBERIA

The Spanish airline will inaugurate DC-8 jet service to Santiago, Chile from Madrid on August 1. The one-weekly flight will fly nonstop to Rio de Janeiro, then on to Montevideo, Buenos Aires, and Santiago.

LUFTHANSA

Boeing 720-B jets have been introduced on the German carrier's route from Frankfurt to Santiago, Chile, via Paris, Dakar, Rio de Janeiro, Sao Paulo, Montevideo, and Buenos Aires. Two weekly flights per week are scheduled. Starting next month, one of the stops at Paris will be replaced by a stop at Zurich.

CAB

NORTHEAST MERGER?

The Civil Aeronautics Board will undertake an investigation to determine whether Northeast Airlines should merge with another air carrier. The probe will be part of the Board's consideration of whether NEA's route certificate shall be renewed. Members Whitney Gilliland and Chan Gurney dissented on the decision to investigate the proposed merger, stating that the Board did not have the power to do so while deciding on the route renewal. TWA reportedly has been interested in a merger with NEA.

PELICAN FILES

An application for either a permanent or temporary certificate of public convenience and necessity to engage in nonscheduled all-cargo flights within the United States has been filed with the Civil Aeronautics Board by Pelican Air Cargo Co., Sulphur, La. Pelican was organized by Amos V. Moak. It owns no equipment at the present time, but proposes to have "suitable aircraft" ready by the time operations are ready to start.

EXAMINER HITS QANTAS

CAB Examiner Joseph L. Fitzmaurice has opposed the State Department's interpretation of the United States-Australian bilateral air agreement, and recommended Board denial of the application of Qantas, Australian air carrier, to provide service at Tahiti as an intermediate point on its transpacific route.

HEWITT ON MERGER SUCCESS

The president of Riddle Airlines, Robert M. Hewitt, testifying in the ASA-Riddle merger investigation, predicted to the Civil Aeronautics Board that merger of the two all-cargo airlines will be financially successful. He pointed out that for the

first time it would permit a through all-cargo service by a United States airline between cities of the East and certain points in Latin America.

Riddle serves key cities along the East Coast and a number of Midwest cities; ASA, now headquartered in Miami, flies to Central and South American points.

Hewitt, referring to President Kennedy's Alliance for Progress slogan, asserted that the ASA-Riddle merger "will contribute to the national defense by strengthening our air transportation system in the vital Caribbean area." He offered a tentative schedule one-plane service between five United States points and points in Latin America. Hewitt stated, however, that he was not completely satisfied with the schedule and he has asked that "some further work" be done on it.

Acknowledging certain weaknesses of the ASA operation—its infrequent schedules and the fact that nearly all of its freight was brought to the airline by surface carriers—Hewitt commented on the latter:

"We believe that by providing dependable schedules, modern aircraft and aggressive and imaginative selling, we can divert some part of this to air. We are convinced that new freight can be developed moving south of Miami by air.



Hewitt

"Will make money"

I think the merger will make sense from the standpoint of Riddle Airlines in that it will make money...."

RATES

ALASKA'S RATES BACKED

The complaints against general cargo and specific cargo rate reductions proposed by Alaska Airlines, brought before the Civil Aeronautics Board by Pacific Northern Airlines and Northwest Orient Airlines, have been turned down by the Board.

Alaska had filed new rates which represented an across-the-board cut of 2¢ per pound in general commodity rates between the Pacific Northwest and Fairbanks and Alaska, effective in June. On shipments of 100 pounds the rate would be dropped from 19¢ to 17¢ per pound. In other weights, the proposed new rates would scale down to 13½¢ per pound.

In addition, the Alaskan carrier had filed lower rates on eggs, meat, and produce from Portland and Seattle to Fairbanks and Anchorage—13¢ per pound on a minimum of 500 pounds, a drop of 6¢ per pound. The rate between Anchorage and Kotzebue has been dropped from 12¢ to 9¢ per pound.

Alaska also filed a deferred rate applicable between the Pacific Northwest and Nome and Kotzebue—15¢ per pound, which is 11¢ per pound under the regular rate. A condition of the tariff is a minimum 48-hour delay for deferred shipments.

FORWARDERS

The Air Freight Forwarders Association, which has expressed accord with a CAB proposal to extend the seven-day rule to 21 days for domestic forwarder payments (Part 296.5, Economic Regulations) attacked two other proposals in Docket No. 11509. These would (a) reduce the 30-day requirement for international forwarders to 21 days, and (b) require indirect and direct air carriers, including foreign airlines, to state in their tariffs regulations and practices relating to the billing of originating shippers or forwarders for transportation services. (June 1961 AT; Page 75.)



Haffer
Fights proposals

In a statement to the Board, Louis P. Haffer, AFFA executive vice president and counsel, said that what had started as a petition "intended to affect only domestic forwarders" has been broadened by the Board to include international forwarders, and "now also proposes to modify Part 297.4 ... and to make certain changes in Part 221 that will affect both international and domestic forwarders."

"There is no sound reason that can be advanced for the proposal to reduce the time of payment by international forwarders from 30 to 21 days," Haffer told the Board. He said that "so far as all available evidence indicates" current practices and procedures in international air freight transportation are working satisfactorily. On this, Haffer commented:

"Apparently in the interest of 'uniformity,' however, the proposal would attempt to make the time for payment the same for both domestic and international for-

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warder shipments, for the stated reason that there is no substantial difference between the administrative problem of domestic and international forwarders.

"This basis for the proposed symmetry is not in accord with the facts. In truth both the administrative problems involved in international air freight forwarding payments and the practices that have been followed for many years in such payments reflect a need for the additional time in the payment of international freight forwarder charges.

"As the forwarder parties herein stated in their original petition, the 30-day payment period in the case of international shipments 'is a realistic one because of the problem of distance and the complexities involved in international documentation and customs clearance.' It is not uncommon for forwarders to have 50-100 origin and destination offices, stations or agencies at various points abroad serving all of the continents. Receipt and clearance of invoices, airwaybills, credit documentation and other paper necessary in international air freight movements to verify the accuracy of the weight and charges and the receipt or the delivery by those world-wide stations, each operating with its local customs, demand a greater degree of flexibility than in the case of domestic movements. With the expected, accelerated growth of international air freight, and the serving of many more distant, widely-scattered points served by individual forwarders, the problem of integrating the individual detailed records of the offices at these points into a central audit system at the forwarder's home office will become even more acute and more time-consuming.

"Moreover, under IATA rules, there has been in effect for many years a 30-day provision for payment by IATA agents to airlines for agency freight. It was apparently in conformance with this rule for IATA agents that the 30-day provision for payment by forwarders was made a part of Regulation Part 297.4. Since most forwarders are also IATA agents and make payments to the same airlines at the same time both as agents for airline freight and as forwarders for their own freight, the same period for payment in each case makes good sense. Any disparity between the time for payment in the two kinds of freight would in fact be without any rational basis. It would necessitate two different accounting periods and would unbalance the accounting operations of the forwarders without any commensurate return. If there were a basis for any difference, a longer period would be more justified in the case of consolidated forwarder shipments where the problems of verification and correlation of invoices are considerably more complex. And certainly any

George Dart

One of the best-known air cargo sales figures in the East passed away recently. He was George Dart, who about a year before his death had announced his retirement from active occupation.



Dart

Dart entered the transportation industry 27 years ago as a representative for the Kee-shin Trucking Co. Following subsequent associations with two car-loading companies, he established in 1945 the Mercury Airfreight Forwarding Co. Two years later, Dart joined the Flying Tiger Line, successively moving up from sales representative to district sales manager and regional sales manager. It was in the latter capacity that he set up Tiger's offices east of the Mississippi.

In 1955 Dart became associated with Air Express International as its United States sales manager. He returned to the airline business a year later, accepting the post of New York interline and sales manager for Riddle Airlines. When he retired in June 1960, he and his wife established residence in Kingston, New York.

Old-timers will remember the article which *Reader's Digest* ran on a cattle lift to Colombia and the key part played in it by George Dart.

shorter period for forwarder payments than for agency payments would constitute completely irrational discrimination."

It was pointed out that the payments for transportation charges to airlines by forwarders and cargo agents on a uniform 30-day basis, is universal. So well has this worked, Haffer maintained, that "the accounting procedures of the forwarders and agents have been geared to this practice long enough not to warrant any tinkering without an impelling reason to do so." Rather than to encourage what he termed "the problems that would develop" from the modification, the world-wide 30-day billing practice should be welcomed. Citing an example, AFFA's counsel stated:

"... If the Board were to attempt to so alter the rule for payment by United States forwarders, foreign forwarders operating to the United States and free from such regulation but operating under the IATA 30-day rule, might well enjoy a competitive advantage over the United States forwarders in the matter of payments."

The fact is that under present universally-adopted practices, the forwarder now has quite a substantial accounting burden without aggravating it by this proposal. International airlines, applying the rule applicable to agents, require forwarders to file 'reports' with them on a semi-monthly or monthly basis. These 'reports,' when checked by the airlines, are the 'bills' of the airlines. There is no actual separate invoicing or billing by the international direct carriers because by common practice this 'report' has come to be regarded as the 'bill.' The international forwarder therefore now has to assume the onerous burden of billing himself by classifying, assembling and correlating all the copies of the airline airwaybills from all of the forwarder offices and preparing a 'report' to each airline on that basis.

"In the domestic field, on the other hand, this billing is performed by the airlines. The proposal here would only serve to saddle the international forwarders with an additional burden without purpose. It does not, of course, seek to modify this billing practice that has become standard all over the world, by requiring the airlines to prepare the bills themselves, for it would be opening up many additional problems if it were to propose to do so. The international forwarder is thus left with this expensive and time-consuming 'billing' obligation. He does not need the extra problems involved in a narrowing of the time for his payment, particularly where no real justification for the limitation has been made evident."

With regard to the suggested addition of Part 221.38(i), the AFFA said:

"The apparent principal purpose of the proposal here is to require equal treatment by an individual forwarder or airline of all of its own customers, and not to compel identical billing practices by all forwarders, or by all airlines, or by all forwarders and all airlines since under the proposal each direct or indirect carrier may have different billing intervals and different periods within such intervals from any other carrier. There may then be as many different billing procedures under the proposal as there are indirect and direct carriers. But the limited result sought to be achieved by this proposal, that is, equality of treatment of each carrier's own customers, may just as well be reached by a periodic inquiry by the Board's investigative branch on a random basis into any undue favoritism or discrimination by carriers for selected customers in relationship to billing intervals or the time required for the payment of such bills. Requiring carriers to undertake the additional burden of incorporating such billing practices in their tariff rules, and to continue to maintain them in such tariffs for this policing purpose, will only constitute an extra and expensive chore for carriers without any comparative return."

"These petitioners, in requesting an extension in the seven-day rule to 21 days, stated in their original Petition that such an extension 'vigorously enforced and carefully supervised to insure that the respective parties do not stretch the pre-billing period to inordinate lengths for discriminatory or other purposes would not only be more workable but would produce uniformity of treatment and call a halt to whatever preferences may now be practiced.' We believe that this supervision by the Board can be exercised at least equally as well without the requirement that such procedures be set out in the carrier tariffs."

"Moreover, except for a maximum period within which bills are payable, which would be, and is now, set out in the regulations themselves, the forwarders do not see any virtue in requiring that any carrier, direct or indirect, actually have billing intervals or periods covered by each billing interval the same for all its customers. The requirements of various customers, from the nature of their businesses, may be different; and merely because customers may be treated differently in these limited connections does not mean one is being preferred over the other or that the other is being discriminated against. There may be some value in a regulation relating to a minimum frequency of billing such as, for example, a requirement that forwarders and airlines bill all of their customers no less than every thirty days. But such a provision should be uniform for the entire industry, both the indirect and direct carriers. Coupled with provisions for maxi-

mum time for payment from the date of such billings, also to be set forth in the regulations, a minimum billing frequency requirement would allow sufficient flexibility within that permissible range to provide for the different requirements of each of the carriers among themselves and the differing requirements among the customers of any one carrier. There would, however, be no need for a tariff rule such as that proposed, or for any rule merely incorporating what would be a regulatory requirement."

AEI GOES DOMESTIC

Air Express International, which a quarter-century ago established the first air freight forwarding company, devoted to expediting imports and exports, has expanded into new areas of air shipping.

According to John E. Muhlfeld, vice president-sales, AEI has entered the domestic market. Its Golden Rocket Service is being extended to continental shippers and buyers, with pickup and delivery services established for more than 1,700 United States communities.

Muhlfeld declared that "a single rate covers the air transportation of a shipment, including the necessary trucking at consignor and consignee points." He said that AEI has filed its tariff with the Civil Aeronautics Board. It features commodity rates with no minimum charges.

The AEI executive asserted that the company's latest action has enabled it to provide "a fully rounded service for shippers of all types of commodities, regardless of whether the destination is 100 or 10,000 miles away."



Muhlfeld
New service

MILITARY AIRCRAFT

FIRST JETFREIGHTER

The first of 30 all-jet cargo planes for modernization of USAF's Military Air Transport Service was delivered last month.

The MATS commander, Lt. Gen. Joe W. Kelly, flew the four-engined swept-wing Boeing C-135 Stratolifter from Boeing Field near Seattle, to the headquarters of MATS Eastern Transport Air Force at McGuire AFB, N. J.

The delivery was described as opening the Jet Age for MATS which currently operates only propeller-driven aircraft in its wartime readiness training over worldwide routes. The 500 mile-an-hour C-135, with nonstop over-ocean range, will fly at twice the speed, twice the height, and carry three times the load for a 50% greater range than airplanes currently in use, MATS said.

An interim purchase, the 30 big Boeing jets are the result of an administration move to beef up global military airlift capability.

The Stratolifters will be delivered to MATS at a rate of two per month. All 30 are slated to be delivered and in operation by this time next year. Part of the aircraft will be based at McGuire AFB and part at Travis AFB, Calif., headquarters of MATS' Western Transport Air Force.

COMMERCIAL AIRCRAFT

NEW JET PURCHASES

American—The airline has signed a letter of intent with the Boeing Company for the purchase of 25 three-engine, short-range jets. The letter of intent is premised on agreement about the terms of the contract and the specifications of the aircraft. Delivery has been set for 1964.

British United—Four VC-10s have been ordered from Vickers. The 600-mile-an-hour jets, which will be delivered in 1964, are to be placed in operation on BUA's routes to East, Central and West Africa.

JAL—An intercontinental turbofan DC-8 jet has been ordered from Douglas by the Japanese air carrier. The \$6,083,731 plane will be delivered next March, and will give JAL a DC-8 fleet of five.

Slick—The all-cargo airline, which is preparing to resume common carrier operations, has expressed its intention to buy two more Canadair CL-44 swingtail freighters. Slick has two such turboprops on order. These will be delivered in September and October.

Trans Caribbean—Signing of an agreement with Douglas for the purchase of a Series 50 DC-8 jet, with an option for the purchase of a second such jet later this year, was announced by the airline. The plane will be put in operation on Trans Caribbean's New York-San Juan route in October, "though interim service may begin this summer if pending arrangements can be completed." Flying time is expected to be slashed to only three hours.

JET DELIVERY

CAT—Civil Air Transport has received its Convair 880-M *Mandarin Jet* which probably will go into service on its Far Eastern routes. CAT will operate the jet from Taipei to Okinawa, Tokyo, Seoul, Manila, Hong Kong, and Bangkok.

NEW RECORDS

Air France—A Boeing 707 *Intercontinental* flew from Mexico City to New York in 3:28 hours at an average speed of 603 miles per hour. Ninety-two passengers and cargo were aboard.

Delta—A Convair 880 jet flying nonstop from Chicago to Miami was unofficially clocked for the distance at 1:59 minutes, slicing 31 minutes off the previous time. Average speed was 627 miles per hour. The plane carried 71 passengers and cargo.

El Al—A nonstop jet flight of 5,760 statute miles, carrying 100 passengers, cargo and crew, made the New York-Tel Aviv hop in 10:20 hours. This was the longest regularly scheduled nonstop flight on record. The plane was a Boeing 707-420 *Intercontinental*.

Iberia—The Spanish airline recently flew its new Series 50 DC-8 from Long Beach, California, to Madrid, Spain, a distance of 6,000 miles, in 10:40 hours, a new speed record. The plane was aided by a tailwind.

Panagra—A DC-8 flew from Santiago, Chile to Lima, Peru in 3:08 hours. Previous record, set by a DC-7, was 4:37 hours. Eighty-five passengers and cargo were aboard the DC-8.

TWA—A Convair 880 jet, flying from San Francisco to Chicago with 53 passengers and freight, covered the distance in 2:57 hours, an unofficial mark.

NEW OFFICES

AIRLINES

AIR FRANCE

Charlotte, N. C.—Cutter Building, South Tryon and 4th Streets. James Carey, district manager.

New Orleans, La.—International Trade Mart Building. Donald K. Phillips, district manager.

SEABOARD

Cleveland, Ohio—Room 23, Hangar 7, Cleveland-Hopkins Airport. Robert Thompson, manager.

FORWARDERS

AIR EXPRESS INTERNATIONAL

Dusseldorf, Germany—Zweigniederlassung Dusseldorf, Flughafen, Room 187. Jurgen Heck, manager.

PETER A. BERNACKI, INC.

Chicago, Ill.—O'Hare Building No. 1, 4140 George Street, Schiller Park, Ill. Phone: 678-5000. TWX: FKN PK 546. Charles Foster, manager.

AIRPORTS

SEATTLE-TACOMA

Air freight handlings in April, as compared with the same month of a year ago, dropped from 3,596,060 pounds to 2,832,352 pounds. Express handlings rose from 253,867 pounds to 270,130 pounds. Both categories are running behind last year for the first four months of the year. Freight is trailing by 1,152,255 pounds; express, by 6,227 pounds.

PUERTO RICO

April total at Puerto Rico International Airport was 3,818,203 pounds, compared with 3,870,603 in April 1960, a drop of 3%. For the first four months, a drop of 0.2% is noted—15,595,629 pounds versus 15,630,177 pounds.

BELFAST

The new civil Air terminal for Belfast, Northern Ireland, will be located at Aldergrove, approximately 10 miles from the city. It will be completed in the spring of 1963. British European Airways will build freight facilities there.

CHILE

The Development Loan Fund has approved a loan of \$3.2 million to the Government of Chile to help it build a modern commercial airport at Concepcion. Total cost of the project is \$3.6 million. Present air facilities can handle aircraft only up to the size of the DC-3. The new airport also will serve as an alternate field for Santiago. It is anticipated that within the next five years, cargo traffic to this area will increase 500%.

HANDLING - PACKING

WESTERN SHOW SET

Manufacturers and suppliers of handling and packaging products have received official announcement of the 1962 Western Material Handling and Packaging Show to be held in Los Angeles next May 9, 10, and 11. Sponsored by American Material Handling Society's Los Angeles Chapter, and endorsed by the Society of Packaging and Handling Engineers, Southern California Chapter, it will be the fourth biennial show held under their auspices.

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LONDON LETTER

(Continued from Page 2)

line was going flat out to provide a second-to-none service to shippers; and to speed up cargo handling at London, they have introduced three Cargomaster loaders, which can cut by half the time needed to load or unload the cargo and baggage holds of a modern airliner.

So fast is the Cargomaster in action that a complete load of passenger baggage—which in the Boeing 707 can weigh around four tons—can be on its way to the customs hall or airport building within 10 minutes of the jetliner coming to a halt.

BOAC are especially aiming at getting a larger slice of the lucrative transatlantic freight market, and there are 52 weekly flights each way on which freight can be carried.

The BOAC spokesman said that more and more shippers are converting from sea to air transportation. Amongst the recent special cargo uplifted by the airline on its United States service was a 2½ ton delicate and expensive electronic printing machinery plant, which was flown in the cargo hold of a 707, London to Chicago.

The machinery, manufactured by J. F. Crossfield Ltd., went to the Chicago Rotoprint Company. It was the first such machine to be sold in the United States.

BEA is also streamlining its freight services. Last year the airline uplifted more than 50,000 tons of freight and mail, while the total freight and mail ton-mileage amounted to 20.8 million. At present, however, all scheduled air freight routes are operated by aircraft primarily designed for passenger transport. However, three *Argosy* aircraft have been ordered to remedy this (May 1961 AT; Page 36).

The Ministry of Aviation have just released their March 1961 freight figures. They show that freight picked up and set down at United Kingdom airports amounted to 22,413.5 short tons during the month—an increase of 20% compared with March 1960.

CONGRATULATIONS

UNITED STATES AIRLINES

Braniff: Capt. R. V. Carleton, senior vice president, presented with a pair of diamond-studded gold wings and a silver and crystal set at a ceremony marking his 30 years of service with the company. He joined originally as a pilot . . . M. L. Shaffer assumes the duties of district sales manager in Minneapolis. Bill L. Runnels replaces him in Waterloo, Iowa, as district sales manager.

Flying Tiger: Heading the new freight sales office in Atlanta is H. G. Ayres, who has been appointed district sales manager. He has served with the headquarters sales organization in Burbank, Calif., having joined the carrier in 1950.

Los Angeles: Robert P. Hubley elevated to vice president-sales of the helicopter airline.

National: The following appointments have been made at the Western terminals of the recently inaugurated transcontinental service: Edward M. Lepper, district sales manager in the Los Angeles-Long Beach area; Kenneth A. Fraser, district sales manager in the San Francisco-Oakland area; Charles A. Stevens, city sales manager in San Diego; and Charles J. Unser, city sales manager in Las Vegas. Station managers are: Wallace L. Sellers in San Francisco; Donald J. Williams in San Diego; Paul V. Woodard in Las Vegas; and G. King Taylor in Los Angeles. Taylor has the additional appointment of West Coast Area manager . . . Bernard A. Wright becomes district sales manager in Norfolk and Newport News, Va.

Northeast: V. K. Stephens joins as manager of agency and interline sales. Coming immediately from Travel, Inc., in Washington, D. C., he was previously associated with Capital Airlines for 23 years . . . William J. Murphy named district sales manager for the New York City area. He brings 16 years of airline experience to NEA . . . Jack F. May, formerly New York district sales manager, moves to Boston as manager of sales techniques.

Northwest: Paul L. Benscoter heads the new transportation services department. Formerly vice president-Orient Region stationed in Tokyo, Benscoter, who joined in 1942, has served the carrier in the Orient since 1947, bar a brief interim appointment in Chicago . . . Benjamin G. Griggs, Jr., appointed assistant to the president. His service with NWA started in 1950.

TWA: Thomas F. Huntington appointed vice president-organization and procedures . . . Dr. P. G. Yovanovitch, previously district sales manager in Geneva, assumes the duties of regional director of cargo sales in Paris.

Trans Caribbean: M. G. Marden assumes responsibility for advertising, sales promotion and public relations functions . . . Lind Ortiz becomes customer service manager.

United: The following elections and appointments have been made as a result of the Capital merger: M. H. Whitlock, former senior vice president-operations and maintenance for Capital, becomes vice president-line maintenance; O. T. Larson, vice president-ground services for United, elected vice president-transportation services for Western ground and passenger service operations; Fred A. Brown, assistant vice president-transportation services

for United, named assistant vice president and general manager-transportation services for Eastern ground and passenger service operations, headquartered in Washington; and R. W. Hardesty, former vice president-operations for Capital, becomes assistant general manager.

FOREIGN AIRLINES

Air France: Donald K. Phillips, previously Dallas district sales manager, appointed manager of the new district office in New Orleans. He joined the foreign carrier in 1954, having previously served for a year with American . . . James Carey comes from Atlanta to head the new district office in Charlotte, N. C. He was associated with Northwest for six years, and had also been associated with Boeing in Seattle, before joining Air France last November . . . Thomas A. Seidle named sales representative in the new Westchester office in White Plains, New York. He has served since 1948 with Air France.

BWIA: Derek Glover, general manager-Southern Routes for BOAC, has accepted a temporary appointment of managing director of the British West Indian air carrier.

Ethiopian: Lawrence J. Staley appointed secretary-treasurer with headquarters in Addis Ababa. For the past 15 years he had been associated with TWA, holding finance department positions in this country and in Europe.

Iberia: John Strobel, formerly with the Great Circle Air Charter Company in New York, appointed a sales representative.

JAL: Dominick Yovino joins as cargo sales representative. For the previous 4½ years he was with American.

Lufthansa: Bernhard Weiss becomes district sales manager in Buffalo. He succeeds Thomas Chidiac, recently transferred to the German airline's New York headquarters. Werner Knotz, moving from the Toronto office, replaces Weiss in Albany as district sales manager.

Mexicana: Jesus E. Vargas takes the newly created post of technical director. Capt. Arturo Jimenez Nieto, Mexican's former chief pilot, succeeds Vargas as manager of operations.

TACA: William B. Daly appointed vice president and general manager. Having been with TACA for the past 16 years, he has served since 1949 as treasurer . . . James W. Morgan, Jr., whose association with the Latin American airline dates back to 1947, named treasurer.

Varig: Henry H. Maass, formerly cargo manager at Idlewild, upped to cargo sales manager. He was with Eagle and Airwork Atlantic prior to joining Varig in 1956 . . . New resident sales representatives are: Peter J. Pieper, Seattle; Robert M. Morris, Milwaukee; Charles W. Lawrence, Pittsburgh; LeRoy Becker, Jacksonville; and Phillip Altenbaugh, Philadelphia.

FORWARDERS—AGENTS

Air Express International: George J. Weenen, a specialist in international air cargo, becomes director of accounts, a newly created position. Prior to joining the air freight forwarding firm seven years ago, he served with Sabena and KLM . . . Lawrence Ginsberg elevated to the key post of general import manager. Having first joined AEI in 1948, he resigned two years later to form his own company, but rejoined in 1960 . . . Albert Petraglia, coming from Northeast Airlines, appointed sales and operations representative in the Washington-Baltimore area.



Row 1—Benscoter (Northwest); Staley (Ethiopian).

Row 2—Weiss (Lufthansa); Maass (Varig).

Row 3—Weenen, Ginsberg (AEI).

Row 4—Brautman (Airborne); Vitale (Mercury).

Airborne: M. B. Brautman appointed manager-New York Region. President of Pan Maritime Cargo Service since 1956, having joined in 1948, that firm now being a wholly owned subsidiary of Airborne, Brautman takes full responsibility for all traffic through the New York area . . . M. J. Sandone joins in Philadelphia as operations supervisor-domestic divisions.

Allied: George Graham, previously associated with Riddle and ASA, named district manager in Miami, replacing Orlando Torres . . . Robert Maloney promoted to regional sales manager supervising the Eastern states, succeeding Americo Falacci who has resigned . . . Other promotions: Faustino Gonzalez, operations manager—Puerto Rico; Hector Aleman, regional sales manager—Puerto Rico; Arthur F. Searley, New York district sales manager; John A. Ford, San Juan district sales manager; Mario Velez, Miami district sales manager.

REA: Robert C. Beans appointed superintendent of the Detroit-Michigan Division. His service with the express company goes back to 1934.

INDUSTRIAL TRAFFIC

Crucible Steel Company of America: Anthony Sarkis assumes the duties of traffic manager.

Chemstrand Corp.: L. P. Edwards upped to the corporate customer service staff in the position of traffic specialist in Greenville, S. C.

Western Electric Co.: Frank A. Demarest transferred from Kearny, N. J., to New York City, where he succeeds the retired William Loudenberg as traffic manager—rates and routes . . . Replacing Demarest at Kearny as resident traffic manager is Frank B. Schnebly, Jr. . . . A. H. Odeven moves from New York to Columbus, Ohio, on promotion to resident traffic manager in the place of Demarest.

Aleo Products, Inc.: James L. Layton named regional sales manager for transportation products in the Pacific region of the company.

Allied Chemical Corp.: John P. Hellmann becomes West Coast traffic representative.

Scott Paper Co.: George M. Fullmore appointed traffic manager . . . James F. Morse becomes distribution manager for the West . . . O. Daniel Evans named distribution service manager for the East.

General Tire & Rubber Co.: R. W. Grant appointed traffic manager in Marion, Indiana . . . R. E. Grant becomes traffic manager in Mayfield, Kentucky.

Dominion Textile Co., Ltd.: D. E. Croll promoted to traffic manager.

White Motor Co.: John M. Flynn appointed branch manager in New Orleans.

Dow Chemical Co.: Oliver E. Beutel named director of distribution and traffic.

National Lead Co.: Robert S. Vonnahme elevated to assistant general traffic manager in New York City . . . Fred Meyeroff succeeds Vonnahme in Houston as district traffic manager.

Thomas J. Lipton, Inc.: Michael Posig joins as assistant general traffic manager.

GROUND SERVICE

Mercury Air Freight, Inc.: Anthony C. Vitale named general manager. He has been with the trucking firm since 1941.

AIRCRAFT MANUFACTURERS

Douglas: Effective August 1, the following changes will take place: Jesse L. Jones, vice president-general manager of the El Segundo Division, moves to the same post in the Santa Monica Division; Leo A. Carter resigns the latter post to accept a special assignment with the company; and James W. Ross takes over the duties of general manager of the El Segundo Division, having formerly served as assistant to that position . . . Harry E. Hjorth appointed vice president and managing director of Douglas Aircraft Company (Japan) Ltd. He will be headquartered in Tokyo.

CLUB NEWS

Automotive Exporters Club of Chicago: At the May meeting, held at the Builders Club Garden Room on May 9, the discussion on the export credits and insurance held over from the April meeting took place. A new guarantee program

introduced by the Export-Import Bank was reviewed by Clarence Ruethling and Tony Buchar.

Women's Traffic Club of Los Angeles: A recent dinner in the Mayfair Hotel commemorated the 36th anniversary of this the first traffic club composed exclusively of women organized in the United States. The event honored past presidents, 21 of whom were in attendance. Williams-Dimond & Co. presented the birthday cake. An entertainment program was presided over by Elena V. Ramos, first vice president,

Traffic Club of St. Louis: New club officers installed on June 6 at a meeting in the Chase Hotel are: Frank Becht, general traffic manager of the Falstaff Brewing Corp., president; Nick Laffler, general sales manager of Freight Ways, first vice president; Kenneth C. Dillman, general traffic manager of the A. P. Green Firebrick Co., second vice president; Wm. J. Rescaritis, general freight agent for the Illinois Terminal Railroad, third vice president; Victor H. DeLinere, general traffic manager of the Reardon Co., fourth vice president; S. A. Keathley, traffic manager of the Chicago & North Western Railway, fifth vice president; and Mel Walsh, traffic manager and purchasing agent for the Ruberoid Co., secretary-treasurer.

Traffic Club of Newark: W. E. Translaurer, traffic manager of the Dow Chemical Co., Newark, was chairman at a recent club meeting in the Robert Treat Hotel. *Seconds for Survival*, a New Jersey Bell Telephone Co. film, was shown. Roger Callahan, of Kramer Bros. Freight Lines, was in charge of arrangements for the annual dinner-dance and Ladies Night held at the same hotel on May 6.

Traffic Club of Greater Los Angeles: Former U. S. Senator William F. Knowland, of California, was principal speaker at the annual installation dinner function in the Statler-Hilton Hotel. His subject: *1961—The Year of Decision*.

Chicago Transportation Club: New officers: Arthur D. Ohnesorge, assistant (Concluded on Page 50)

FACTS & FIGURES

U. S. AIRLINES

AMERICAN

Freight—25,486,000 ton-miles registered in the first quarter, a drop of 6% from the same period last year. March total of 10,243,000 ton-miles, which topped that of March 1960 by close to 10%, set a new industry record for that month.

Express—Ton-miles totaling 942,000 represented a decline of 9% from the March 1960 figure.

BRANIFF

Freight—A total of 1,146,788 ton-miles was flown in March.

Express—Ton-mileage in March reached a total of 175,405.

DELTA

Freight—Record 1,529,000 ton-miles flown in March showed a jump of 15% on the same month last year, and 22%, or 297,000 ton-miles, above February. 1960's total of freight flown was 15,781,967 ton-miles.

FLYING TIGER

Freight—Adversely affected by the Feb-

ruary strike of flight engineers, the total for March of \$1,092,416 was 14% under March 1960. . . . Revenues for the first nine months ended March 31 showed a 5% gain over the comparable period a year ago. Operating revenues totalled \$20,536,093; net income, \$42,856. Included in the earnings were gains from the disposal of aircraft

SEABOARD

Freight—During the first quarter, total revenues of \$3,873,000 brought a net loss of \$1,187,000. In the corresponding quarter of 1960, revenues of \$5,335,000 brought a net loss of \$1,302,000.

TWA

Freight—2,612,000 ton-miles flown internationally in April topped last October, the previous high mark, by 37% and established an all-time monthly record. April's domestic total of 4,349,000 ton-miles was 38% higher than April 1960, and higher than any other April. . . . Domestic revenue in May produced a resounding 41% increase over the same month a year ago. A total of \$996,000 was reported. Internationally, \$518,000 in revenue represented a 7% rise.

Express—Domestically 708,000 ton-miles were flown, an increase of 8% over the same month a year ago.

UNITED

Freight—1960 ton-miles totaled 23,653,000, representing an increase of 32%. In April this year freight climbed 19% to 7,522,000 ton-miles.

Express—3,317,000 ton-miles were flown in 1960—topping 1959 by 30%. 1,033,000 ton-miles hauled in April this year showed a 6% jump on the previous month.

FOREIGN AIRLINES

ALITALIA

Freight—First-quarter figures indicate a whopping 131% increase over January-March, 1960 in the volume of freight flown between United States and Canadian gateways and points in Europe, Africa, and Asia. April wound up with a 218% leap over the same month of last year, and established a new high for the route.

BEA

Freight—For the first time in a long while, freight ton-mileage showed a drop. In February, the British carrier flew 1,254,600 ton-miles, slipping from the same month in 1960 by a margin of 4.3%. . . . In the fiscal year ended March 1961, BEA flew 16,601,000 ton-miles for an increase of 11½% over the previous fiscal year.

EAST AFRICAN

Freight—An increase of 13.9% over 1959, lifted EAA's 1960 freight total to 2,896 tons.

LUFTHANSA

Freight—During the first three months of 1961, the eastbound freight volume jumped 168% over last year's total for this quarter, while westbound volume rose 62%. Total freight lift over the North Atlantic was 2,693,102 pounds.



NEW EQUIPMENT
FOR THE
Shipper & Carrier

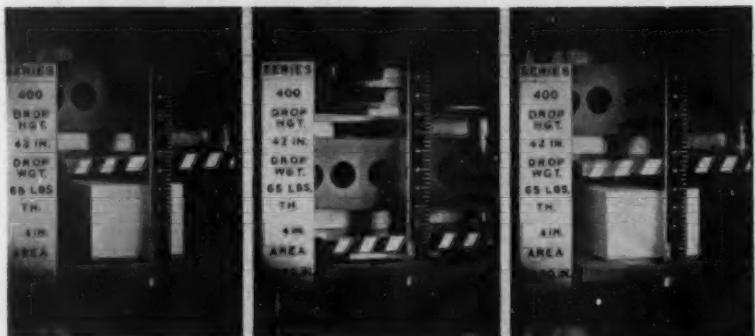
The Raymond Corporation announced that its engineers have designed a new three-stage mast which greatly increases the range of elevation in the company's line of narrow aisle electric fork lift trucks. In a 2,000-pound capacity Reach Fork truck, a model with a collapsed height of only 72" will lift as high as 147". The 83" collapsed height model lifts to 180". These lifting ranges represent a 25% increase in elevation over the double telescopic models, Raymond said.



Full "free lift" is offered in the new design. Picture window visibility has been achieved by nesting the uprights, arranging the lifting cylinders in a compact cluster, and avoiding the need for additional oil lines and lifting chains. The new three stage mast is offered in capacities of 2,000, 3,000, and 4,000 pounds, in both the Straddle and Reach Fork models. The maker pointed out that the new low profile enables a truck to go into over-the-road trailers and through low doorways without sacrificing the high lift needed to utilize air rights in high-ceiling storage areas.

The Rapida-Standard Co., Inc., has announced accessory items designed to increase the versatility and utility of the APC (Automatic Pressure) conveyor. It said that three accessory items of special interest are the APC flow diverter plate, an APC gate, and an APC snubber kit. The flow diverter plate permits transfer of materials between APC conveyor and other conveyor at right angles to APC. The APC gate permits raising of a section of APC so that aisles are not permanently blocked. The APC snubber kit permits insertion of other types of equipment in an APC line

DROP-TESTING RESILO-PAK



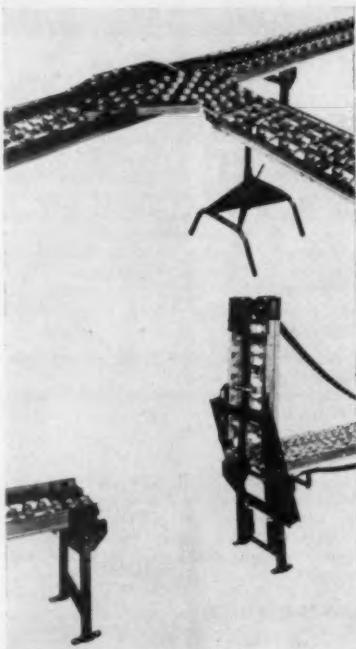
A highlight of Armstrong Cork Company's exhibit at the AMA National Packaging Show in Chicago recently was a drop test demonstration of Resilo-Pak, a new variety of internal cushion packaging material. The resiliency of the material was tested at room temperature and compared with a test at -80° F. The results were electrically recorded on a screen. Pictured above is a standard drop test showing the almost complete recovery of Resilo-Pak after being greatly compressed by a 65-pound weight. Left to right the pictures show the block of Resilo-Pak before weight is dropped, the material compressed beneath the weight and the instant and almost complete recovery after the weight bounced up.

without disrupting belt movement. (*Upper photo illustrates the Rapistan APC conveyor and flow diverter plate. Lower photo shows gate section.*)

The flow diverter is an aluminum plate with steel wheels recessed in yokes in the plate in an arc to form a 90° curve. The plate is placed on the APC under the belt, which is guided by wheels set parallel with the APC bed. For feeding items onto APC, wheel conveyor, the plates are manufactured in right and left hand models. Each weighs only 35 pounds and requires no bolts or fasteners to remain in place. For removing items from the APC, the outer end of the plate should be 1" higher than the APC bed. For feeding items onto APC, the outer end of the plate should be 4" higher than the APC bed.

The APC gate section is provided in 3', 4' and 5' lengths. The gate lifts easily and springs counterbalance the weight. When closed, the gate is held in horizontal position by a latch. This accessory requires an end idler pulley, which adds 6" to the overall length of the gate section. The pulley is only 4" in diameter, which minimizes the gap between the gate section and the adjoining section of conveyor. Rapistan indicated that for safety reasons, a microswitch is supplied with the gate. When the gate is opened, the conveyor motor stops automatically. When the gate is closed, the motor may be started by pushing a button in any of one or more push-button stations. The APC gate is furnished with a special Rapistand for the hinge junction. Stands are adjustable within ranges of 21" to 29", 28" to 40", or 39" to 51" to the top of the stand.

The snubber kit snubs APC belt down and under spur curve switches, gravity conveyor sections, scales, tables or other equipment that may be inserted in an APC line. It consists of a pair of parallel angle spreaders, at each end of which is mounted an assembly consisting of a pair of 4" diameter Durastan wheels and four 2" diameter bearings that act as wheels. A pair of parallel angle diagonal members at each end anchor the assembly to the ends of APC beds. The top APC belt is threaded under the 4" wheels and the bottom, or return belt, is threaded under the 2" wheels. Thus, the top belt in its forward motion reaches the end of an APC section, is angled downward under the 4" wheels, then travels below and parallel to the APC bed, under the second pair of 4" wheels and then angles upward to the section APC section. The return belt is traveling in the opposite direction and under the 2" wheels. Overall width of the kit at any point is 8 $\frac{1}{2}$ " and functions with any APC frame width. Clearance is required below the APC for installation of the kit. For 2 $\frac{1}{2}$ " channel gravity conveyor, 7 $\frac{1}{4}$ " clearance is required below the gravity section; for manually-operated spur curve, 10%" clearance is needed, and for motor-operated spur curve, 13%" clearance is needed.



BOOKS

The standard reference of United States aircraft, missiles and spacecraft, the 1961 edition of **Aerospace Year Book** (American Aviation Publications, Inc.; 482 pages; \$10) is now available. This comprehensive record of the industry and the outstanding events of the past year, military as well as commercial, makes the volume an exceptionally valuable addition to your reference library. Profusely illustrated. Now in its 42nd annual edition, the 1961 number, in our opinion, ranks as the best.

Sir John Slessor, in his foreword to Kenneth Poolman's **Zeppelins Against London** (John Day Co.; 246 pages; \$4.50), makes the point that Britain ceased being an island when Blériot made the first Channel air crossing, and that the "crude low-yield bombs dropped from German Zeppelins 'underlined that truth in blood.' Poolman's story of the first aerial 'blitz' during World War I not only is a reminder of this truth, but provides an almost forgotten chapter of history, when huge airships hovered over London in an attempt to bring the civilian population to its knees. The effect of the Zeps, and how they were defeated, make an unusually exciting story.

Journey of the Giants (Coward-McCann, Inc.; 280 pages; \$4.95) is a biography of one of World War II's brightest stars, the B-29 *Superfortress*. As told by Major Gene Gurney, the reader is brought along with the B-29, from Boeing drawing board to victory in the Pacific. The author stresses the theme that the big bomber was the single most important weapon we had in the Pacific, culminating with the atomic operation against Japan. **Journey of the Giants** is an affectionate portrait of a great plane, and Gurney makes it abundantly clear why it was just that. The book is replete with rousing accounts of its exploits.

Alvin Moscow has devoted his **Tiger on a Lash** (G. P. Putnam's Sons; 252 pages; \$4.50) to a reportorial account in depth of the crashlanding of an airliner on New York City's Rikers Island. It is the story of human experience under agonizing conditions, based on numerous interviews with the surviving passengers aboard the DC-6A, and its crew. Moscow plunged into official reports and talked with all levels of airline personnel and Government experts in his personal probe of what lay behind the crash. The author devotes the latter part of his book to the subsequent CAB inquiry and a short discussion on air safety, but the best part is up front.

We strongly commend to you **Five Traffic and Transportation Conferences, 1957-1961** (Canadian Industrial Traffic League; 278 pages; \$5.00). This valuable volume contains the transcripts of five CITL conferences which cover all phases of transportation and their relationship to traffic management. Of especial importance to *Air Transportation* readers will be those portions of the book which discuss the reduction of distribution costs. This is broken down to three parts: its significance to industry, the areas where these costs may be reduced, and the role of transportation.

Alexander McKee's **Strike From the Sky** (Little, Brown & Co.; 288 pages; \$4.75) is another in the growing library on the Battle of Britain. This is no pedestrian account. It is an expert job obtained by research and personal interviews, including RAF and Luftwaffe pilots who participated in the epic aerial battle. McKee's intention clearly was to "show the battle unfolding blow by blow, seen first from one side and then from the other, as well as from the ground . . ." McKee has a keen sense of drama which gives all 16 chapters of *Strike From the Sky* exceptional readability while keeping historical perspective in correct balance.

Tyrol and Salzburg (Macmillan Co.; 447 pages; \$8.50) is one of the Baedeker series of handbooks for travelers—which ought to be adequate recommendation. This pocket-size volume, the fourteenth edition of the *Eastern Alps*, replete with painstaking details and admirably designed maps, is the last word in guides. Covers Vorarlberg, Tyrol, Salzburg, Western Carinthia and Eastern Tyrol.

South Africa, says William Plomer, is a "photographer's paradise." And Hanns Reich in his rich collection of photographs brought together in the new volume, **South Africa** (Hill & Wang, Inc.; 94 pages; \$5.95), goes on to prove Plomer's assertion. A pair crossing a serene field, a thoughtfully smoking native, a woman at work, a zebra moving across a road, a panoramic shot of Victoria Falls—to select just a few examples—reveal the art of the photographer at his best. This is the true South Africa uncovered—a special kind of beauty captured by "the right camera in the right hands at the right moment." All but nine of the 98 photos were taken by Reich.

Talking Your Way Around the World (Harper & Brothers; 216 pages; \$3.75), by Mario Pel, is a sort of a profile of the world's languages. In 16 chapters, the famous philologist describes and provides examples of all the better-known languages, plus Latin, Swahili, Esperanto, and even of the pidgins of the world. An unusually interesting little volume which we unhesitatingly recommend to all travelers. Professor Pel makes the science of language entertaining as well as instructive.

Irwin R. Blacker's newest novel, **Days of Gold** (World Publishing Co.; 350 pages; \$4.50) does not equal his *Taos*. Nevertheless, it is a well-knit adventure story, laid in the Yukon country at the end of the 19th Century. Blacker, who is a strong hand at characterization, has not permitted the action of his tale (based, in part, on fact) to submerge his people. They—especially his Simon Colt, Cynara, and the Indian, Tlingit Tom—have been made entirely credible people.

Ronald Kirkbride's novel, **An Innocent Abroad** (Prentice-Hall, Inc.; 179 pages; \$3.95) is a happy frolic which finds the central character a young Californian, in a series of hilarious adventures in the Far East, picking up a Japanese bride along the way. Moving swiftly, the author manages successfully to keep those chuckles rolling. The last line of the book reads: "It was quite a homecoming, it really was." You'll agree they were entitled to that homecoming after what went on before. Good summer fare.

Everybody has heard of New York's Bowery, especially the characters frequenting the dingy street in the southern end of Manhattan—the drunks, bums, down-and-outers. Elmer Ben-diner has studied these people, and engaged in research, personal interviews, and close observation. His **The Bowery Man** (Thomas Nelson & Sons; 187 pages; \$3.50) is an interesting account of the street's inhabitants, their way of life, how they came to this dead end, and what the Skid Row of New York represents in a progressive city.

David Divine's contribution to the Civil War centenary is a new novel, **Thunder on the Chesapeake** (Macmillan Co.; 399 pages; \$4.95). The British writer—he is also known under the pseudonym, David Rame—has taken the well-traveled course of Civil War novelists which leads to the selection of principal characters with divided loyalties. He has set their actions against the unfolding events culminating in the historic Monitor-Merrimac duel in Chesapeake Bay. It's almost unfair requiring the Southern belle to have to choose between a Yankee Navy officer and a Johnny Reb. But Divine has researched his subject well, and he can handle dialogue with a flair. He has endowed his novel with plenty of movement, rarely permitting the reader's interest to slacken. The battle scenes are excellent.

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32 Here is an attractive brochure produced by an air freight forwarding firm which features a reprint of a magazine article describing a new-type of international air service for shippers. Of special interest to importers and exporters.

33 New 16-page catalog produced by a manufacturer of narrow-aisle electric trucks and hydraulic hand pallet trucks. Illustrated with on-the-job photos showing a wide variety of applications for space-saving equipment. Also illustrates various models available and gives pertinent information regarding specifications.

34 Going to Europe? Here is a wonderful 48-page booklet by KLM which covers 19 West European countries and provides up-to-the-minute information on currency conversion, duty-free imports, tipping, temperature ranges, time differentials, location of American embassies and consulates, and a list of best buys in each country. It includes a section on passports and documents, giving data on visa requirements, vaccinations, etc. Another section includes European conversion tables for temperature, weights, measures, capacities, etc.

35 Four-page brochure which, in pictorial style, provides a series of ideas on how to cut costs through the use of conveyor installations.

36 An illustrated safety kit designed to make fork lift truck operators more efficient and safety-conscious in the ma-

terials-handling work, offered by a major manufacturer of materials-handling equipment. The kit contains a pocket-sized *Lift Truck Operators Guide*, four humorous safety cartoons for posting on plant bulletin boards, and four attractive lift truck route posters printed in bold letters. Excellent.

37 Sample copy of the *American Import-Export Bulletin*, monthly digest-size magazine devoted to international trade. Features a wide variety of data of special importance to foreign traders, including listed opportunities for import and export trade.

38 Here's a new 16-page booklet on steel-fabricated storage equipment. Intended as a time-saving reference book to help storage system planners quickly pinpoint their main storage objectives and the best ways to achieve them. Well-illustrated.

39 *Essential Facts for World-Traders and Travelers*, a valuable 63-page booklet which provides a wealth of information. Compiled by a well-known international forwarding firm, it contains such helpful data as foreign exchange, weight conversion tables, passport information, important dates in foreign countries, foreign trade definitions, airline distances, etc.

40 Here is the *SAS World-Wide Cargo Time Table*, informative 20-page booklet which details for shippers the 1961 summer program of Scandinavian Airlines System. Contains detailed schedules of the air carrier's European and intercontinental flights, covering 89 cities in 40 countries on five continents. Includes both passenger-cargo and all-cargo flights.

41 For the first time, Air Express International has issued a domestic air freight tariff. Effective between more than 1,700 United States communities, it features one-rate door-to-door service, as well as commodity rates with no minimum charges.

42 For that traveling businessman KLM is offering handy plastic name tags which can be attached to suit-

cases, briefcases, and attache cases. Consists of a plastic disk with space for name and address, and a short chain.

43 British Overseas Airways Corp. is making available in seven different languages a valuable booklet which provides, at a glance, the package sizes which can be accommodated in air transports operated by BOAC and its associated airlines. Aircraft include the Boeing 707 (Series 120, 220, 320 and 420), Comet 4, Douglas DC-8, Super Constellation L-1049, Constellation 747, DC-6, DC-6A, DC-6B, DC-4, DC-7F, Electra, Britannia (102 and 312), Viscount, Argonaut. Available in English, French, Spanish, Portuguese, German, Dutch, and Italian. Booklet will be sent in English language unless otherwise specified.

44 New two-page bulletin illustrating and describing Elwell-Parker's new Spartan series of 10,000-, 12,000- and 14,000-pound capacity electric-powered fork trucks.

GRiffin

(Continued from Page 4)

son had served in this office for many years.

Ignaz Grolik, of Hensel, Bruckmann & Lorbacher, Inc., moved into the office of secretary. This post had been held by John Vaill, New York manager of General Air Freight, Inc.

Replacing Walter Schaaf, president of Hensel, Bruckmann & Lorbacher, Inc., and Robert Seitl, president of Allied Air Freight, Inc., whose terms as director have expired, are Alvin B. Beck, and George Doherty, vice president and head of the Foreign Traffic Department of American Express Co.

Robert Hopes, president of General Air Freight, Inc., heads the committee for the 1962 annual banquet.

WORLD FLEET

(Continued from Page 8)

This is expected to fly next year, and may be the prototype of a transport.

Development costs of a supersonic airliner run from between \$500 million to \$1 billion, the organization pointed out, making it "improbable that any private concern will undertake the development of this aircraft without considerable financial assistance." The United States, Britain, and France have announced that funds have been allocated for design studies.

CLUB NEWS

(Continued from Page 47)

general traffic manager of the Masonite Corp., president; Dan W. Baldwin, of the Denver & Rio Grande Western Railway, vice president; Albert E. Parker, of the Clidden Co., secretary; William C. Stumpe, of Pacific Intermountain Express, treasurer; Harold B. Waltz, of the Pennsylvania Railroad, assistant secretary; and E. Leonard Erickson, of the Union Pacific Railroad, assistant treasurer.

Ramapo Valley Traffic Club: The final dinner meeting of the club was marked as Airline Night. Edward Crane, New York district cargo sales manager, Braniff International Airways, addressed the members on the subject of domestic and international air cargo. The travel side of the air transportation picture was handled by Edward McColgan, of Delta Air Lines, who discussed the Jet Age and presented a motion picture devoted to the air carrier's Convair 880 service.

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